

Jeffrey A. Turkstra

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5/18/2024

Education

Purdue University School of Electrical and Computer Engineering **West Lafayette, IN**
Doctor of Philosophy (PhD) *May 4, 2013*

Dissertation: Metachory: An Unprivileged OS Kernel for General Purpose Distributed Computing

Available at <https://metachory.org/metachory.pdf>

Major Professor: Prof. David G. Meyer

Purdue University School of Electrical and Computer Engineering **West Lafayette, IN**
Master of Science in Electrical and Computer Engineering (MSECE) *May 5, 2007*

Purdue University School of Electrical and Computer Engineering **West Lafayette, IN**
Bachelor of Science in Computer Engineering (BSCmpE) *May 8, 2004*

Professional Appointments

Associate Professor of the Practice **August 2023–present**
Purdue University Department of Computer Science *West Lafayette, IN*

- Head and structure organizational hierarchies of 70+ reports including 8-20 graduate teaching assistants (TAs) and 25-52 undergraduate TAs per semester
- Supervise software development, testing, and QA teams of 4-6 people for creation of homework and project assignments
- Mentor and supervise graduate and undergraduate research assistants
- Collaborate with fellow faculty in the advancement of computer science pedagogy
- Coordinate and collaborate with other campus departments and units in support of the university's teaching, research, and service mission
- Develop and deliver courses in CS at all levels
- Conduct scholarship of teaching and learning projects

Assistant Professor of the Practice **January 2017–August 2023**
Purdue University Department of Computer Science *West Lafayette, IN*

Software Engineer **January 2009–December 2016**
Purdue University Rosen Center for Advanced Computing *West Lafayette, IN*

- Developed virtualization middleware for supercomputers
- Managed infrastructure and computing resources associated with nanoHUB and the HUBzero project

Engineer **September 2009–December 2011**
Microfluidic Innovations, LLC *West Lafayette, IN*

- Designed, prototyped, tested, and fabricated a digital control system including multiple discrete computing elements
- Coded firmware and low-level API interfacing libraries in C and assembly language

Research Assistant **January 2008–May 2009**
Network for Computational Nanotechnology *West Lafayette, IN*

Ski Lift Operator **December 2008–April 2009**
Steamboat Ski & Resort Corporation Lift Operations *Steamboat Springs, CO*

Instructor **August 2005–May 2008**
Purdue University School of Electrical and Computer Engineering *West Lafayette, IN*

Research Assistant **8/2004–8/2005, 8/2006–8/2007**
Purdue University Engineering Computer Network *West Lafayette, IN*

Teaching Assistant **August 2002–May 2007**
Purdue University School of Electrical and Computer Engineering *West Lafayette, IN*

Peer Counselor **May 2002–May 2004**
Purdue University Division of Financial Aid *West Lafayette, IN*

Awards

Favorite Faculty Award Nominee	2024, 2021
<ul style="list-style-type: none"> University-wide, annual award recognizing outstanding faculty as nominated by students 	
Teaching Academy Member Nominee	2023
<ul style="list-style-type: none"> University-wide academy that “strives to bring together the best teaching faculty and graduate students across campus to create a collective voice for teaching excellence. Members are nominated and selected by their peers.” 	
Association for Computing Machinery (ACM) Faculty Award	2022
<ul style="list-style-type: none"> Departmental, annual award for “best faculty member” selected by vote of Purdue CS undergraduate students and awarded by the Purdue Student Chapter of ACM 	
College of Science Team Award	2019
<ul style="list-style-type: none"> College-level, annual award recognizing efforts by faculty teams in College of Science 	
Charles C. Chappelle Fellow	2005–2006
<ul style="list-style-type: none"> University-wide, academic year fellowship including one year stipend and tuition coverage selected based on character and intellect 	
Graduate Student Teaching Excellence Award	2006
<ul style="list-style-type: none"> University-wide, annual award honoring graduate students for their dedication to Purdue students and their outstanding teaching contributions 	
Magoon Award for Outstanding Teaching Assistant	2005
<ul style="list-style-type: none"> Departmental, annual award selected by both faculty and students in ECE recognizing exemplary work as a teaching assistant 	

Publications

- Hart, R., Hays, B., McMillin, C., Rezig, E. K., Rodriguez-Rivera, G., Turkstra, J. A. “Eastwood-Tidy: C Linting for Automated Code Style Assessment in Programming Courses.” Proceedings of the 2023 54th SIGCSE Technical Symposium on Computer Science Education (Toronto, ON, CA), 2023.
- Rodriguez-Rivera, G., Turkstra, J. A., Buckmaster, J. M., Leclainche, K. A., Montgomery, S. K., Reed, W. J., Sullivan, R. P., Lee, J. B. “Tracking Large Class Projects in Real-Time Using Fine-Grained Source Control.” Proceedings of the 2022 53rd SIGCSE Technical Symposium on Computer Science Education (Providence, RI, USA), 2022.

Workshops

- Herman, G., Logan, P., Moreshet, T., Sotomayor, B., Turkstra, J. A., Weese, J. L., Yan, L. “Professional Development Pre-Symposium Workshop for Teaching-Track Faculty.” 55th SIGCSE Technical Symposium on Computer Science Education (Portland, OR), 2024.
- Herman, G., Logan, P., Sotomayor, B., Turkstra, J. A., Weese, J. L., Yan, L. “Professional Development Pre-Symposium Workshop for Teaching-Track Faculty.” 54th SIGCSE Technical Symposium on Computer Science Education (Toronto, ON, CA), 2023.

Teaching

All evaluations are out of 5.0

Term	Course	Teaching Evaluation	Enrollment	TA Supervision
Spring 2024	CS 240: Programming in C	4.36	371	20 GTAs, 52 UTAs
	CS 240: Programming in C	4.50	383	20 GTAs, 52 UTAs
Fall 2023	CS 307: Software Engineering I	4.42	151	5 GTAs, 3 UTAs
	CS 252: Systems Programming	3.99	130	6 GTAs, 17 UTAs
	CS 50011: Introduction to Systems for Information Security	N/A ¹	4	1 Grad Instructor
	CS 50010: Foundational Principles of Information Security	N/A ¹	3	1 Grad Instructor
Summer 2023	CS 50011: Introduction to Systems for Information Security (online)	3.50	16	1 Grad Instructor

¹No evaluations collected by department

²Rating originally out of 4.0, linearly scaled to be out of 5.0

³No evaluations received

	CS 50010: Foundational Principles of Information Security (online)	3.50	18	1 Grad Instructor
Spring 2023	CS 240: Programming in C	4.33	631	21 GTAs, 33 UTAs
	CS 307: Software Engineering I	4.40	191	8 GTAs, 3 UTAs
Fall 2022	CS 180: Problem Solving and Object-Oriented Programming	4.53	446	24 GTAs, 40 UTAs
	CS 307: Software Engineering I	4.43	187	7 GTAs, 5 UTAs
Summer 2022	CS 50011: Introduction to Systems for Information Security (online)	4.14	8	None
	CS 50010: Foundational Principles of Information Security (online)	4.29	9	None
Spring 2022	CS 240: Programming in C	4.57	235	13 GTAs, 19 UTAs
	CS 240: Programming in C	4.70	238	13 GTAs, 19 UTAs
	CS 590: Code Style Analysis	N/A ¹	1	None
Fall 2021	CS 180: Problem Solving and Object-Oriented Programming	4.63	290	15 GTAs, 28 UTAs
	CS 240: Programming in C	4.45	261	9 GTAs, 16 UTAs
	CS 590: Code Style Analysis	N/A ¹	1	None
Summer 2021	CS 50011: Introduction to Systems for Information Security (online)	4.5	4	None
	CS 50010: Foundational Principles of Information Security (online)	4.75	4	None
Spring 2021	CS 307: Software Engineering I	4.4 ²	90	4 GTAs, 4 UTAs
	CS 307: Software Engineering I (online)	4.3 ²	40	4 GTAs, 4 UTAs
Fall 2020	CS 240: Programming in C	4.5 ²	169	8 GTAs, 15 UTAs
	CS 240: Programming in C (online)	4.5 ²	67	8 GTAs, 15 UTAs
	CS 180: Problem Solving and Object-Oriented Programming	N/A ¹	313	18 GTAs, 30 UTAs
	CS 490: Code Style Analysis	N/A ¹	1	None
Summer 2020	CS 50011: Introduction to Systems for Information Security (online)	N/A ³	2	None
	CS 50010: Foundational Principles of Information Security (online)	N/A ¹	2	1 Grad Instructor
Spring 2020	CS 240: Programming in C	3.9	381	11 GTAs, 38 UTAs
	CS 307: Software Engineering I	N/A ¹	120	4 GTAs, 6 UTAs
Fall 2019	CS 252: Systems Programming	4.2	46	4 GTAs, 25 UTAs
	CS 252: Systems Programming	3.7	73	4 GTAs, 25 UTAs
Summer 2019	CS 50011: Introduction to Systems for Information Security (online)	4.5	5	None
	CS 50010: Foundational Principles of Information Security (online)	N/A ¹	5	1 Grad Instructor
Spring 2019	CS 240: Programming in C	3.7	165	8 GTAs, 33 UTAs
	CS 240: Programming in C	3.7	162	8 GTAs, 33 UTAs
	CS 490: Malware & Vulnerability Analysis	N/A ¹	1	None
Fall 2018	CS 240: Programming in C	3.7	106	6 GTAs, 25 UTAs
	CS 307: Software Engineering I	3.8	87	5 GTAs, 6 UTAs
	CS 180: Problem Solving and Object-Oriented Programming	3.7	214	11 GTAs, 14 UTAs
Summer 2018	CS 252: Systems Programming	4.0	34	2 GTAs, 6 UTAs
Spring 2018	CS 307: Software Engineering I	3.6	149	5 GTAs, 4 UTAs
	CS 252: Systems Programming	3.9	114	8 GTAs, 28 UTAs
Fall 2017	CS 307: Software Engineering I	3.5	178	6 GTAs, 6 UTAs
	CS 180: Problem Solving and Object-Oriented Programming	3.9	185	12 GTAs, 32 UTAs
Summer 2017	CS 250: Computer Architecture	2.8	43	2 GTAs, 2 UTAs
	CS 50011: Introduction to Systems for Information Security	3.5	2	None
Spring 2017	CS 307: Software Engineering I	4.0	166	4 GTAs, 7 UTAs

Spring 2008	ECE 469: Operating Systems Engineering	4.33	35	2 TAs
Fall 2007	ECE 364: Software Engineering Tools	N/A ¹	38	1 TA
Spring 2007	ECE 364: Software Engineering Tools	3.62	54	4 TAs
Fall 2006	ECE 364: Software Engineering Tools	4.5	30	2 TAs
Spring 2006	ECE 364: Software Engineering Tools	N/A ¹	55	2 TAs
Fall 2005	ECE 264: Advanced C Programming	3.45	92	2 TAs

Technical Strengths

Languages	C, Java, Python, C++, FORTRAN 90/95, PHP, Bash, KornShell, HTML, CSS, and Visual Basic
Operating Systems	Fedora, RedHat, CentOS, Debian, Ubuntu, Mint, and Rocky Linux; FreeBSD; SunOS; and Solaris
Daemons	Apache, Bind, SSH, Samba, NFS, Sendmail, Cron, MySQL, as well as many other *nix daemons
Tools and Environments	git, Vim, CVS, RCS, CDE, KDE, Gnome
Hardware Design	VHDL, ModelSim SE Plus, Synopsys DC Shell, Silicon Ensemble, Cadence Virtuoso, PSpice, HSpice, Orcad Schematic and Capture, gEDA Software Suite
Clusters and Storage	Oracle Grid Engine, Sun Ray Server and Clients, Condor, StorEdge SAN Foundation, Common Array Manager (CAM), StorADE, Symantec Veritas Enterprise Administrator
Office	All versions of Microsoft Windows, Office, and DOS, L ^A T _E X, LibreOffice, and Peachtree Accounting

Instructional Software Development

Lewis Structures Online Resource

Fall 2023–present

- Internet website providing educational materials related to Lewis Structures in Chemistry
- Includes pedagogical material, quizzes, interactive models, and video content
- Anticipated public release in 2024
- Collaborators: Prof. Hannah Starr, Megan Bechtloff, Hailey Hiatt, Caroline Sorrells, Sidney Tindell

PeerVal: Peer Evaluation System

Fall 2017–present

- Peer ranking and evaluation system that creates a multiplier used to scale project grades
- Increases accountability and fairness in student teams
- Used by 7,594 total students in 15 offerings of CS 307, 18 offerings of CS 407, 7 offerings of CS 180, 3 offerings of CS 408, and 2 offerings of CS 252
- Collaborators: Prof. Buster Dunsmore, Keehwan Park
- Faculty Users: Profs. Buster Dunsmore, Roopsha Samanta, Ben Delaware, Suresh Jagannathan, Xiangyu Zhang, Gustavo Rodriguez-Rivera
- Available at <https://endor.cs.purdue.edu/~pucsevals/>
- Last major revision Summer 2023

C-Lab: Test Module Framework for C

Fall 2018–present

- Rigorous test module framework for developing C programming assignments
- Includes its own malloc() library that detects memory errors, improper allocation, and other errors
- Functions to generate and manipulate input files of arbitrary text format
- Structural support for discrete test cases, point tracking, and grading for large class sizes
- Used by 3,620 students in 9 offerings of CS 240
- Collaborators: Brian Hays, Jordan Field, Yubo Shao, and Chris Potter
- Ongoing, iterative development cycle with two major revisions (latest Spring 2020)

Eastwood: Code Style Linter for C

Fall 2019–present

- Code linter that assesses and provides feedback to students with regard to adherence to the course code standard
- Used by 3,339 students in 7 offerings of CS 240 and 2 offerings of CS 252
- Latest version built using LLVM
- Collaborators: Rowan Hart, Connor McMillin, Brian Hays, and Elkindi Rezig
- Available at <https://github.com/novafacing/eastwood-tidy.git>
- Ongoing, iterative development cycle with three major revisions (latest Fall 2021)

EnCourse: Real-Time Class Project Analytics and Tracking

Fall 2018–present

- Submission, revision, and analytics tracking system for large enrollment courses
- System used by 6,564 total students in 9 offerings of CS 240 and 13 offerings of CS 252
- Collaborators: Prof. Gustavo Rodriguez-Rivera, Jordan Buckmaster, Killian LeClainche, Shawn Montgomery, William Reed, Ryan Sullivan, and Jarett Lee
- Available at <https://www.cs.purdue.edu/homes/grr/Encourse>
- Maintained by Prof. Gustavo Rodriguez-Rivera

endor.cs.purdue.edu: Systems Host

Spring 2017–present

- CAS-authenticated server that hosts course websites and software tools including above peer evaluation system for multiple courses including CS 240, CS 252, CS 180, CS 307, CS 407, and CS 408
- Hosts various source control repositories for development and testing of course-related software and assignments

Purdue “All-American” Marching Band Multimedia Archive

Summer 2008–present

- Video archive website and system written in PHP with a MariaDB database used by over 1,987 registered users
- Over 1,065 videos dating back to 1935 transcoded and available for clinical study by directors and members of Purdue University Bands
- Additionally used as a teaching tool to illustrate concepts and examples in CS 307—Software Engineering I
- Available at <https://purdueband.com/>

Curriculum and Course Development

CS 307: Software Engineering I

- Fall 2023*
 - Integrated quality criteria into sprint review assessment process
 - Updated grading approach and rigor to improve consistency among project coordinators
- Fall 2022*
 - Augmented existing question pool and created new final exam
 - Revised slide deck with updated ethics examples and industry-relevant material
- Spring 2021*
 - Integrated latest ACM and IEEE codes of ethics into lecture content
 - Created new homework assignment reflecting above
 - Created, delivered, and recorded 23 synchronous video lectures
- Spring 2020*
 - Created and deployed new course website using PHP
 - Revised grading policies and rubrics to increase rigor and consistency
 - Revamped team peer evaluation policies to improve fairness
 - Transitioned 25 teams of 4-6 students to remote development environment mid-semester
- Fall 2018*
 - Developed new grading rubrics and process for sprint reviews to increase consistency and fairness
- Spring 2018*
 - Created three new homework assignments covering ethics, open source development processes, and incremental development
 - Created question pool containing approximately 100 questions to supplement existing exam material
- Fall 2017*
 - Engaged in an intensive course redesign effort for CS 307 - Software Engineering I with Purdue IMPACT Program
 - Developed new learning outcomes and objectives
 - Established plan to create flipped-format lectures on git revision control software
 - Revised course structure to create a more student-centered, active learning-based environment
 - Developed assessment plan to evaluate how course redesign influences student outcomes and learning
 - Created a new peer evaluation system using PHP and MariaDB
- Spring 2017*
 - Created new deck of 778 slides loosely based on Prof. Buster Dunsmore’s and Prof. Fred Mowle’s slides

CS 240: Programming in C

- Spring 2024*
 - Revised course outcomes to better reflect content and goals
 - Supervised creation of eleven new homework assignments
 - Altered course administrative structure, creating new head TA roles to support growing enrollments
 - Created custom gradebook software to more efficiently manage grading and calculation
 - Additional iteration and bug fixes for C-Lab
 - Created three new exams
- Spring 2023*
 - Supervised two graduate TAs and two undergraduate TAs in creation of eleven new homework assignments and associated testing modules
 - Additional improvements and bug fixes with C-Lab
 - Supervised UTA in augmenting EnCourse’s [2] data aggregation and visualization
 - Created three new exams

- Spring 2022*
 - Supervised graduate TA in creation of ten new homework assignments and associated testing modules
 - Supervised revision and bug fixes to further extend course linter in addition to data collection for improvements and usage in [1]
 - Created three new exams
- Fall 2021*
 - Supervised development team of four TAs over summer to create ten new homework assignments and associated testing modules
 - Supervised revision and bug fixes to further extend course linter
 - Integrated additional security-related lecture content including buffer overflow exploits
 - Created four new exams, including two separate final exams, and fourteen quizzes
- Fall 2020*
 - Recorded 26 asynchronous video lectures including “special guests” like Darth Vader and a campus squirrel
 - Supervised development team of six TAs over summer to create ten new homework assignments and associated testing modules
 - Supervised development and implementation of new code style linter in Clang (and related CS 490 course)
 - Configured and deployed web-based IRC chat client and server for asynchronous text-based support
- Spring 2020*
 - Recorded 13 asynchronous video lectures
 - Supervised creation of twelve new homework assignments and associated testing modules
 - Created new MIDI parsing and manipulating project to replace remaining exams for pivot to online instruction
 - Created one new midterm exam
 - Worked with developers to completely rewrite and improve test module framework
- Spring 2019*
 - Created thirteen new homework assignments and associated testing modules
 - Created three new exams and nine written quizzes
 - Created hardware interfacing lecture demo using a Raspberry Pi
 - Wrote ~15 page introduction to the Linux CLI for students
 - Improved test module harness and malloc() library used by all homework assignments
 - Worked with course staff to rewrite and improve course linter
- Fall 2018*
 - Created deck of 649 slides loosely based on Prof. Gustavo Rodriguez-Rivera’s and Dr. Richard Kennell’s slides
 - Created thirteen homework assignments and associated testing modules
 - Created nine written quizzes
 - Worked with graduate TA to create new code standard and linter for course

CS 180: Problem Solving and Object-Oriented Programming

- Fall 2022*
 - Integrated PeerVal into team project assessment process
 - Revised example code and lecture content based on updates by Prof. Buster Dunsmore
- Fall 2021*
 - Integrated Purdue trivia “breaks” into lecture content
 - Further revised example code and lecture content based on updates by Prof. Buster Dunsmore
 - Restructured lecture order to better support individual and group projects
- Fall 2018*
 - Updated course content and lectures to cover latest Java release features
 - Revised live coding demos, adding additional examples and refining existing code
- Fall 2017*
 - Created new deck of 803 slides loosely based on Prof. Buster Dunsmore’s slides
 - Deployed and utilized new technology including “HotSeat,” a back-channel communication mechanism

CS 252: Systems Programming

- Fall 2023*
 - Supervised creation of new variants of two existing projects (shell scripting and malloc() with buddy allocation)
 - Integrated latest major revision of PeerVal into course
- Fall 2019*
 - Created new variants of four existing projects (shell scripting, malloc(), shell, and web server)
 - Created new multi-threading project and final group project (system monitor)
 - Created first automated test suite for web server project
 - Modified peer evaluation system developed for CS 307 (now used also in 407 and 408) to support CS 252 group projects
 - Migrated course website away from DokuWiki to templated HTML/CSS
- Spring 2018*
 - Created new deck of 1,068 slides loosely based on Profs. Gustavo Rodriguez-Rivera’s, Doug Comer’s, and Dennis Brylow’s (Marquette University) slides
 - Revised and created projects for the course including shell scripting, malloc() implementation, shell, and web server with HTTPS support

Hands-On Malware Analysis

- Spring 2019*
- Worked with Prof. Dongyan Xu and two undergraduate students in the creation of course content—including syllabus, four labs, and midterm exam
 - Supervised related independent study (CS 490) course with one undergraduate student

CS 50011: Introduction to Systems for Information Security II

- Summer 2017*
- Architected, designed, and implemented all aspects of course in preparation for first offering
 - Created syllabus, lectures (459 slides), four laboratory exercises, and an exam based on high-level course outcomes provided by department

Graduate Students Supervised

Rowan B. Hart (M.S.)

CS 590 - Code Style Analysis

Spring 2022, Fall 2021

- One credit hour elective course involving intensive development and analysis related to Eastwood [1]
- Resulting manuscript accepted and published in ACM SIGCSE 2023 Proceedings

Undergraduate Students Supervised

Megan E. Bechtloff

Lewis Structures Project

Fall 2023–present

- Funded Undergraduate Research Assistant (URA) working in collaboration with Prof. Hannah Starr to develop online educational resources related to Lewis Structures

Rowan B. Hart

CS 490 - Code Style Analysis

Fall 2020

- One credit hour elective course involving intensive development and analysis related to Eastwood [1]

Connor J. McMillin

CS 490 - Malware & Vulnerability Analysis

Spring 2019

- Three credit hour course that was approved as an elective for the security track

Departmental Service

Professor of Practice Search Committee

August 2023–present, August 2021–May 2022

- Work with other committee members to build a pool of diverse, qualified applicants for two open faculty positions
- Conduct screening interviews
- Present candidates and make recommendations to department head and faculty
- Comply with university and legal requirements in adherence to EAEO and other policies

MS Graduate Admissions Committee

August 2022–present, August 2019–August 2020

- Evaluate applicants for admission to the Master of Science in Computer Science degree program

Faculty Observer, CS 407—Software Engineering Senior Project

Spring 2017–present

- Attend three sprint reviews and presentations throughout the semester for three to four teams
- Provide feedback and advice to seniors in completing their capstone project

Feasting with Faculty

Fall 2017, Fall 2018–present

- Share lunch with 12-18 first year Computer Science students per week, increasing faculty contact outside of the classroom

Undergraduate Curriculum Committee

August 2020–August 2021, August 2018–August 2019

- Discuss and recommend proposals impacting curriculum for undergraduate students including course proposals, program changes, degree requirements, and general policies impacting instruction and learning
- Worked with faculty in all areas to update and revise degree tracks

Class Insights Dashboard

June 2017–May 2018

- Department representative for “Class Insights Dashboard” project, which aims to give faculty/instructors insights into the academic profile of students in their classes

College Service

Emerging Leaders Science Scholars Faculty Mentor

August 2021–present

- Serve as a mentor to high-achieving students from populations historically underserved by Purdue
- Meet with students once a week
- Assist in articulating short and long-term goals
- Help improve mentee's leadership, teamwork, creative thinking, decision making, and interpersonal skills
- Facilitate community building and career advancement
- Provide psychosocial support

Purdue Science Student Council (PSSC) Snack and Chat Faculty Guest

Fall 2021–present

- Participate in evening events with fellow College of Science faculty
- Interact with dozens of students, holding discussions over a variety of different topics

University Service

University Military Programs Committee

July 2021–present

- Review academic credentials of officers nominated to fill ROTC faculty vacancies
- Observe ROTC class and co-curricular activity
- Support ROTC activities including commissioning events, change of commands, etc.

University Grade Appeals Committee

July 2018–present

- Hear and make determinations regarding formal grade appeals that are unresolvable at the department and college levels.

Purdue Linux Users Group (PLUG) Faculty Advisor

March 2022–present

University Bands

2006–present

- Purdue "All-American" Marching Band Videographer
- Develop and maintain <https://purdueband.com/> video archive, making over 1,000 historic videos available to students and faculty

University Residences Faculty Fellow

August 2017–May 2022

- Work with floor resident assistant (RA) to help engage and integrate students with the university community
- Organize events for students (e.g., evening "dark site" astronomy excursion, bowling, hiking, etc.)

Faculty Marshal

Spring 2019

- Assembled and conducted faculty representatives for the College of Science commencement exercises

IT Operational Oversight Committee

October 2015–December 2017

- Assist VP of IT in identifying and investigating ideas with potential to improve information technology on campus
- Author and co-author reports and surveys for subcommittees (e.g., investigation of solutions to "overwhelming" amounts of campus-originating email, network access policies for visitors, faculty/staff email outsourcing)

Administrative & Professional Staff Advisory Committee (APSAC)

June 2015–December 2016

- Represented over four hundred and fifty administrative and professional staff
- Served as a two-way conduit between A/P staff and the administration

Summer Undergraduate Research Fellowship (SURF) Mentor

Summer 2005

Professional Membership and Service

Computing Research Association, Education (CRA-E)

Organizing Committee Member

2022–present

- Collaborate with faculty from a variety of universities to propose and run [3].

ACM Special Interest Group on Computer Science Education (SIGCSE)

Program Committee Member

2022–present

Association for Computing Machinery (ACM)

Member

2020–present

- Special Interest Group on Computer Science Education (SIGCSE) Member

Purdue Student Publishing Foundation Board of Directors

Faculty Director

2019–present

- Periodically review operations of the Purdue Exponent—Purdue’s independent student newspaper—and any other publications or services sponsored by PSPF
- Provide financial, long-range planning, and personnel policy guidance
- Approve the annual budget and major revisions (amounts exceeding \$1,000)
- Screen candidates, monitor appointments, and make appointments for various positions including publisher, general manager, advertising director, production director, and editor in chief

Professional Development

ACM Special Interest Group on Computer Science Education (SIGCSE)

Portland, OR

Attendee and Reviewer

March 20–March 23, 2024

- Facilitated Computing Research Association (CRA-E) Professional Development for Teaching-Track Faculty Event [3]

ACM Special Interest Group on Computer Science Education (SIGCSE)

Toronto, ON, CA

Presenter and Reviewer

March 15–March 18, 2023

- Co-presented “Eastwood-Tidy: C Linting for Automated Code Style Assessment in Programming Courses”
- Facilitated Computing Research Association (CRA-E) Professional Development for Teaching-Track Faculty Event [4]

ACM Special Interest Group on Computer Science Education (SIGCSE)

Providence, RI

Presenter

March 2–March 5, 2022

- Co-presented “EnCourse: Tracking Large Class Projects in Real-Time Using Fine-Grained Source Control”
- Attended Computing Research Association (CRA-E) Professional Development for Teaching-Track Faculty Event

QPR Suicide Prevention Gatekeeper Program

Certified Course Completion

November 18, 2021

IMPACT-X+: Instruction Matters: Purdue Academic Course Transformation

Participant

Summer 2020

- Engaged in a a medium-touch, two-week long course development program for CS 240 - Programming in C to build and design a “resilient, flexible, engaging, equitable, and student-centered course”

ACM Special Interest Group on Computer Science Education (SIGCSE)

Minneapolis, MN

First Time Attendee

February 27–March 2, 2019

IMPACT: Instruction Matters: Purdue Academic Course Transformation

Faculty Fellow

Fall 2017

- Engaged in a semester long, intensive course redesign effort for CS 307 - Software Engineering I
- Collaborated with other faculty and CIE staff to create new course outcomes and learning objectives

Summer Instructor Symposium

Attendee

Summer 2017

Community Service

Wabash Valley Astronomical Society

Member 2017–present

- Promote astronomy among the local community through outreach efforts
- Volunteer at the West Lafayette Observatory and assist ASTR 263 teaching staff during evening observation events

Boy Scouts of America

Troop 335 Unit of Scouter Reserve 2023–present

- Serve as and support designated adult POC (Point of Contact) for certain troop events
- Support and mentor patrol leaders (PLs) and senior patrol leaders (SPL)

Boy Scouts of America

Cub Scout Pack 3337 Committee Campout Chair 2018–2023

- Supervised, promoted, and coordinated attendance at unit, district, and council camps and events
- Supervised youth leadership to arrange leadership/chaperons, transportation, tour permits, facility/camp reservations and first-aid for all outings
- Reported to the unit committee

Lafayette Citizens Band Board of Directors

Director 2021–2023

Extraprofessional Activities

Amateur (HAM) Radio Operator

W9TKY - Technician Class 2013–present

Purdue Summer Concert Band

Principal Alto Saxophonist 2010–present

Purdue Pilots, Inc. Flying Club

Member 2009–present

- Obtained Private Pilot License (PPL), certificate number 3473175, on February 13, 2010

Purdue University Bands

Various Positions 2000–2006

- Leadership positions included Section Leader and Assistant Section Leader
- Obtained top rank (colonel) as operations officer in the student officer corps
- Ensembles included Purdue “All-American” Marching Band, Basketball Pep Bands, and Concert Band

Purdue Ski & Snowboard Club

Member 2004–2007

- Travel included Aspen, CO; Summit County, CO; Big Sky, MT; Jackson Hole, WY; and Steamboat Springs, CO

Purdue Skydiving Club

Member 2006–2008

Unreal Internet Relay Chat Daemon (UnrealIRCd)

Head Coder 2001–2004

- Maintained the stable branch for an open source Linux daemon, making regular releases

Purdue Low Power VLSI Laboratory

Undergraduate Research Assistant August 2003–December 2003

- Assisted Prof. Kaushik Roy’s research group in the development of low power SRAM cache