

Matthew Stephan, Ph.D.

Assistant Professor

Miami University

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<http://www.users.miamioh.edu/stephamd/>

SKILLS SUMMARY

- **10+ years of experience** leading teams and implementing cutting-edge approaches and technologies in Software Design, Analysis, and Development attained via industrial collaborations and research
- Strong proficiency with **Java and Object-Oriented Design and Programming**, acquired through research development projects, industrial experience, and educating students
- Advanced knowledge of **Agile and Formal Software Engineering, Testing, Design and Development, and Project Management** obtained as an educator and innovator

WORK EXPERIENCE

Assistant Professor (Tenured & Promoted to Associate for July 2021),

Aug. 2015 – Present

Department of Computer Science and Engineering,
Miami University, Oxford, Ohio

- Lead teams in designing software to improve Software Development, Design, and Analysis resulting in **over \$290,000 in funding** and **>600 references/citations**
- Facilitate advanced training, mentoring, and instruction in Software Engineering, Object-Oriented Programming and Design, and Software Testing, with an **overall average evaluation of 3.56/4**
- Direct and supervise a research group consisting of multiple colleagues and students, while also **coordinating 20+ Agile student teams and projects** each year
- Develop software utilizing **Design Patterns, Machine Learning (Python and Pandas), Matlab Simulink, GIT (Version Control), CI / CD, Junit**, and more

Visiting Assistant Professor, Aug. 2014 – July 2015

Department of Computer Science and Engineering,
Miami University, Oxford, Ohio

- Instructed upwards of 3 different courses and 4 sections a semester
- Updated and improved the Software Engineering curriculum and program
- Conducted research, independently, with my previous research lab, and with colleagues within the department

Research Assistant , Sept. 2006 – Dec. 2006

Faculty of Engineering, University of Waterloo,
Waterloo, Ontario

- Created an Eclipse plugin that transforms Ecore models into feature models and vice versa
- Developed a technical report on my findings
- Road-mapped further extensions of the application

Systems Analyst , Jan. 2006 – April 2006

Deloitte Inc., Toronto, Ontario

- Performed critical analysis on a major bank's testing framework and methods
- Implemented a solution that automated tests that were previously accomplished manually
- Created and presented a number of different technical presentations regarding my work and my findings

Software Engineering , May 2005 – Aug. 2005

Visa International, Foster City, California

- Integrated contactless (smart) credit cards into web applications in order to make demonstrations for potential customers
- Used JSP, JAVA, MYSQL, and XRI's to create prototypes of fully operational web applications.
- Worked independently and under minimum supervision

Software Developer , Sept. 2004 – Dec. 2004, May 2003 – Aug. 2003

CheckFree Corporation, Waterloo, Ontario

- Manufactured, for two work terms, financial software using Java, XML, Websphere, and SQL that performed logical actions for the graphical user interface
- Utilized Extreme Programming and other techniques taught in school to ensure that the software was developed efficiently and was compatible with all operating systems
- Participated as an equal member of the team such that I was assigned the same amount of work and responsibilities as many of the senior developers

JR PC/Client Server Developer , Jan. 2004 - April 2004

CIBC - CIBC Technology, Toronto, Ontario

- Upgraded and maintained the CIBC Mortgages department's intranet site using JAVA, HTML, Dreamweaver, Flash, and JavaScript
- Discovered and implemented many innovations to the department's intranet site, such as addition of side-navigation information and adding additional Flash technology
- Volunteered for many subsidiary tasks such as upgrading department's legacy software

Head Staff/Camp Counselor , Counselor: Summers 2000-2002;

Head Staff: Summers 2007-2015

Camp Winnebago, Huntsville, Ontario

- Responsible for upwards of 16 staff and 90 campers belonging to my assigned unit
- Speak publicly to and on behalf of my unit in front of 300+ campers and staff
- Develop and organize a multitude of creative programs and activities intended for the campers to be entertained and bond with their peers

EDUCATION

- Ph.D. in Computer Science, Queen's University, Kingston, Ontario, Sept. 2009 – Aug. 2014
 - Finished coursework with a GPA of 4.20/4.30
 - Course Instructor for Operating Systems and Fundamentals of Information Structures and Software Engineering
 - Teaching Assistant on multiple occasions
- M.A.Sc. in Electrical and Computer Engineering (Computer Software), University of Waterloo, Waterloo, Ontario, Sept. 2007 – April 2009
 - Finished coursework with GPA of 3.9
 - Coauthored Journal Article for Transactions of Software Engineering (TSE)
 - Teaching Assistant for Software Testing & Quality Assurance course
- Bachelor of Software Engineering degree, Software Engineering Program, University of Waterloo, Waterloo, Ontario, Sept. 2002 - April 2007
 - Relevant Courses: Software Abstraction and Specification, Algorithms and Data Structures, Logic and Computation, Concurrent and Parallel Programming, Software Project Management, Operating Systems, Databases.
 - Relevant Projects: Voice-Over IP Project, Accreditation Application Project, C++ Euchre Game, Java Capture the Flag Game, other Java and C++ projects.
- Ontario Secondary School Diploma, Thornhill Secondary School, Thornhill, Ontario, 2002
 - Valedictorian

AWARDS

- National Science Foundation (NSF) Grant #1849632 CRII: SHF: Towards a Cognizant Virtual Software Modeling Assistant using Model Clones; **\$161,861.00 USD**; 2019
- "Beacon-Based Large Touch Screens for Student Team Collaboration and Learning", Miami University Student Tech Fee; **~\$10,300 USD**; 2017
- "Realization of Model Driven Engineering for Big Data: A Model-Driven Framework for Machine Learning Baseball Analytics", Miami University Committee for Faculty Research; **\$24,724 USD**; 2017
- "Increasing Efficiency and Effectiveness of Learning for CS & SE Students Through Multiple Monitors", Miami University Student Tech Fee; **~\$18,000 USD**; 2016
- NSF ICSE 2016 Early-Career Faculty Travel Award; **~\$2,000 USD**; 2016
- Ontario Graduate Scholarship; **\$15,000 CDN**; 2013-2014
- NSERC PGS D3 Scholarship Holder; **\$63,000 CDN**; 2010-2013
- Best Paper Award, Modelsward 2013
- Queen's Graduate Award, **7 semesters x \$1000 CDN**; 2011 - 2014
- University of Waterloo Graduate Scholarship, Winter 2009
- Class Valedictorian, Thornhill Secondary School, 2002

Mentoring Experience

Graduate Supervisor

- Bhisma Adhikari, Master's, Topic on Cognizant Virtual Software Modeling Assistance, In Progress
- Dana Black, Master's, Topic on Voice-Driven Software Modeling, In Progress
- Kaan Koseler, Master's, "Realization of Model Driven Engineering for Big Data: A Model-Driven Framework for Machine Learning Baseball Analytics", Graduated - Spring 2018
- Gaurab Luitel, Master's, "Model Level Design Pattern Instance Detection Using Answer Set Programming", Graduated - Summer 2016

Advisor

Academic Advisor, Miami University

2016 – Present

Advise upwards of over 70 students a semester to help them plan out their academic and professional careers. Help with course sequencing, inter-personal conflicts, career development, and more.

Faculty/Chapter Advisor, Alpha Epsilon Pi

2009 – Present

Continually guide and mentor the chapter's executive board on how to plan, organize, and develop successful philanthropic, networking, and other ventures. Often organize and give lectures to chapters of 30-60 members on general chapter operations and specific advice.

Faculty Advisor, Chabad Miami University

2014 – Present

Provide continual leadership, feedback, and guidance to this organization on growth activities, student engagement, and event ideas.

Head Staff, Camp Winnebago

Summers 2007-2015

Responsible for upwards of 16 staff and 90 campers belonging to my assigned unit. Mentor and teach staff to become better counselors. Perform formal evaluations twice a summer. Frequently speak in front of 300+ campers and staff.

UNIVERSITY OF WATERLOO CO-OPERATIVE EDUCATION RECORD

MATTHEW DANIEL STEPHAN

M ENGINEERING MASTERS: ELECTRICAL & COMPUTER ENG, COMPUTER SOFTWARE

WORK TERM		EVALUATION
FALL 2006	UNIVERSITY OF WATERLOO FACULTY OF ENGINEERING WATERLOO RESEARCH ASSISTANT	EXCELLENT
WINTER 2006	DELOITTE CONSULTING TORONTO SYSTEMS ANALYST	EXCELLENT
SPRING 2005	VISA VISA INTERNATIONAL SAN JOSE, CA SOFTWARE ENGINEERING	OUTSTANDING
FALL 2004	CHECKFREE CORPORATION CANADA WATERLOO SOFTWARE DEVELOPER	EXCELLENT
WINTER 2004	CANADIAN IMPERIAL BANK OF COMMERCE CIBC TECHNOLOGY TORONTO JR PC/CLIENT SERVER DEVELOPER	OUTSTANDING
SPRING 2003	CHECKFREE I-SOLUTIONS CORPORATION WATERLOO SOFTWARE DEVELOPER	OUTSTANDING