

Kunal Shah

Software Engineering Student



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EDUCATION

- **Bachelor of Software Engineering** // 2014 - Present
McMaster University, Hamilton, Ontario
 - **4th Year** - Software Engineering program
- **Shad Valley** // Summer 2013
Engineering Entrepreneurship Program
 - McMaster University SHAD Alumni
 - Immersive summer enrichment program with focus on science, engineering, technology, entrepreneurship and leadership
 - Successfully completed time-constrained team project to develop a business plan and a prototype for human powered transportation in Canada

WORK EXPERIENCE

- **NXP Semiconductors** // Summer 2017
Digital Circuit Design and Verification, Co-op
Kanata, Ontario
 - Returning member of the IP Design team, developing and verifying the Image Cognition Processor IP used for advanced driver assistance systems(ADAS)
 - Participated in establishing and developing new verification work flow for cycle accurate comparison between software and hardware models.
 - Developed memory monitors, simulation work flow and related validation tests.
 - Used Unified Verification Methodology (UVM), System Verilog and Synopsys tools for developing the embedded memory monitors.
- **NXP Semiconductors** // Summer 2016
Digital Circuit Design and Verification, Co-op
Gatineau, Québec
 - Created software model to emulate hardware behaviour from specification document
 - Developed automated C++ test suits to test software model
 - Pioneered process for the team to migrate Excel based hardware register definitions to be compatible with the Synopsys transaction level model (TLM) tool
- **Canada Post** // Summer 2013
Shad Valley Internship, Strategic Analysis team
Ottawa, Ontario
 - Completed research that helped Canada Post plan new services to strategically target youth
 - Developed and conducted an online survey to gather data on Canada Post services used by youths
 - Presented research findings to senior executives

SKILLS

- Programming languages: C / C++, Java, Javascript, Python
- Linux, bash scripting
- Adobe Photoshop CC
- Application testing and verification
- Quick learner, Teamwork, Goal oriented
- Clear communicator: written and verbal

PROJECTS

- **Weather Station Analyzer** // Winter 2015
Ruby , Javascript, Bash, SQLite3
 - Application uses 30 years of California weather data to analyze which weather stations can cease operations without affecting the overall weather prediction
 - Learned searching and graphing algorithms to create predictions.
 - Harnessed SQLite3 database for the data storage and manipulation
 - Used model view controller (MVC) software design pattern to connect the Ruby backend to the HTML front-end with a locally hosted REST server
- **Ultimate Tic Tac Toe Game** // Fall 2016
Javascript, HTML, LaTeX
 - Re-developed an existing open-source project to learn the benefits of the waterfall design process and proper documentation style
 - Created requirements documentation identifying functional and non-functional requirements as well as any assumptions made based on the Volere Requirements Specification Template
 - Learned to develop and document verification and validation using automated testing
 - Conducted beta tests with 30 students using usability survey to improve overall game user experience
- **C++ Expression Calculator** // Fall 2015
C++
 - Application parses complex mathematical expressions then computes the results
 - Learned to use appropriate C++ class hierarchy and object oriented programing
 - Learned git version control and the benefits of working in a team environment
 - Developed random expression generator to thoroughly test the calculator