AKASH MATHUR

Electrical + Computer Engineering Student – University of Toronto
3384 Destination Drive, Mississauga, ON L5M 7W7
TEL (416) 575-2133 **E-MAIL** akash.mathur@mail.utoronto.ca
LINKEDIN linkedin.com/in/akash-mathur-1t9

EDUCATION

Candidate for Bachelor of Applied Sciences
Electrical Engineering + Computer Engineering
University of Toronto, ON, September 2015 – April 2020

SKILLS SUMMARY

- Excellent problem-solving skills
- Backend programming experience with C, C++, PHP, SQL, Java
- Frontend programming experience with HTML5, CSS, JavaScript (including jQuery & AJAX), Smarty Templates
- Experience developing iOS applications with Objective-C & Swift 3
- Experience with ARKit and CoreML
- Proficient knowledge of Agile methodology
- Version Control: Git, Subversion
- Programmable Hardware experience with DE1-SoC FPGA (NIOS II Processor), via: Verilog (Quartus Prime 16.0 & ModelSim – Altera)
- Scope of operating systems includes Windows, Mac OS X, Linux (Debian, Ubuntu)
- Expertise with Microsoft Office, including Microsoft Project, Excel, Word, and PowerPoint
- Excellent verbal and written communication skills
- Motivating leader in activities involving teamwork
- Comprehensive project management and engineering design process proficiency

EXPERIENCE

SOFTWARE DEVELOPER– Checkout 51, Toronto, ON
MAY 2017 – AUGUST 2017

- Participate in the team Agile process by completing assigned tickets related to Checkout 51's web application using PHP, JavaScript (jQuery & AJAX), MySQL, HTML5
- Revamped an in-house tool that tracked completed tickets via. PHP, allowing for client-side database configuration by connecting to the database server using HTTP protocols and AJAX
- Followed test-driven development (TDD) to design and create unit tests with PHPUnit to ensure high-quality code and broad coverage
- Created in-house Key Performance Indicator (KPI) feature via. Geckoboard's API: Generated JSON data in PHP by querying a Redmine database with MySQL; created the API endpoint that fed JSON data to the Geckoboard KPI Widget

R&D ENGINEERING – RainGrid Inc., via. University of Toronto, Toronto, ON
JANUARY 2016 – APRIL 2016

- Innovated new designs for autonomous, real-time decision-making storm-water management systems in order to reduce the risk of sewer backups, overland flooding and property damage
- Devise ways to reduce the impact and costs of severe rainstorms through autonomous controllers

R&D ENGINEERING – Stephen Lewis Secondary School Robotics, Mississauga, ON
SEPTEMBER 2014 – JUNE 2015

- Built and configured basic electric circuits to design an automated robot which could detect and maneuver around obstacles using Arduino UNO
- Programmed algorithms to enable Arduino UNO to maneuver around obstacles using Arduino Software (IDE)

PROJECTS

GEOGRAPHIC INFORMATION SYSTEM (MAPPING SOFTWARE)
JANUARY 2018 – MAY 2018

- Developed mapping software which optimizes route planning and calculates courier and traveling salesman delivery paths
- Utilized Dijkstra's, A*, greedy, and multi-endpoint algorithms
- Developed in C++ , with EasyGL Graphical library

ROBOTIC ARM
JANUARY 2018 – MAY 2018

- Created a Multi-Degree-of-Freedom Robotic Arm prototype with multiple functionalities including 360° lateral & vertical rotations
- Developed using Lego Controller via. DE1-SoC Board with NIOS II Assembly Programming
- Used GPIO pins, sensor devices, 375 RPM motors and 1420 RPM motors
- Thorough use of interrupts, interrupt handlers, subroutines, timer devices, and instruction encoding

VOLUNTEER EXPERIENCE

- **Bluesky Solar Racing Team Member,** University of Toronto, ON, Sep. 2016 - Present
- **UofT Supermileage Team Member,** University of Toronto, ON, Sep. 2015 – April 2016
- **Camp Sai Rockets Organizer,** Sathya Sai Centre of Toronto, ON, June 2015 - Aug. 2015