Rahman Qureshi

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EDUCATION

University of Toronto, *BASc in Engineering Science – Computer Engineering* Expected Graduation 2018

- Relevant Courses: Operating Systems, Algorithm Design & Analysis, Computer Organization, Probability & Statistics

SKILLS

- Technologies: Java, C++, C, Python, Linux/Unix, Git, Arduino, Modelsim/VCS
- Experience with analog/digital circuit and PCB design tools including LTSpice, Eagle, EasyEDA
- Trained in woodshop, 3D printing, basic solidworks

PROFESSIONAL EXPERIENCE

Software Engineer, Tools and Infrastructure Intern January 2017 – April 2017
Google San Francisco, CA, USA

- Working on one of Google's Platform as a Service (PaaS) cloud services, AppEngine, a sandbox cloud computing platform for developing and deploying web applications
- Expected to extend AppEngine's testing infrastructure to support end-to-end deletion all the way to the SQL database to be used to develop regression test suite for future AppEngine modifications and feature development

Device Modelling and Design Verification Engineer May 2016 – December 2016
Intel San Jose, CA, USA

- Worked on Transceiver (XCVR), Fractional Phase-Locked Loop (FPLL) of Intel's new 14nm FPGA, Stratix 10
- Brought-up "Golden Pattern" test suite for new XCVR by analyzing and debugging waveforms in VCS and Modelsim
- Solved critical XCVR simulation model bugs which required an intimate knowledge of digital design, and XCVR microarchitecture and functional spec
- Wrote python scripts to automate comparison of prefit and postfit netlists to help debug fitter
- Participated in code quality control process including thorough testing and team code reviews

Research Intern May 2015 – August 2015
Ultrasonic Non-Destructive Evaluation Laboratory Toronto, ON, Canada

- Summer research to develop a method to detect weak adhesion using ultrasound and machine learning
- Wrote Python API for precision motion control system (bypassing company's GUI based software) to enable automated collection of large dataset consisting of 20M+ points
- Used python's numpy/scipy for signal processing/statistical analysis of data (such as calculating confidence intervals of calculated theoretical parameters) and scikit-learn for machine learning

Backend Web Developer May 2014 – August 2014
University of Toronto Information and Technology Services Toronto, ON, Canada

- Worked on backend of a new website that is similar to google API console as part of an initiative by the university to enable students to access University data
- Helped design data APIs with a focus on RESTful convention and simplicity to be implemented by future interns

EXTRACURRICULARS AND PERSONAL PROJECTS

University of Toronto Aerospace Team May 2015 – May 2016

- Worked on the power subsystem of a 3U CubeSat as part of the Canadian Satellite Design Challenge
- Designed, simulated, and refined battery balancing analog circuit which was subsequently laid out on the power board
- Characterized Q-V curve of our Li-Ion battery to determine charge remaining during satellite operation
- Wrote C drivers for port expanders, temperature/humidity/light sensors

Programming Competition Director May 2015 – January 2016

- Designed a programming competition package for the University of Toronto Engineering Competitions
- Researched other competitions, academic publications and algorithm textbooks and wrote multiple problem statement drafts, working with industry professionals and professors to assess viability and difficulty and fine-tune them

8x8x8 LED Cube May 2016 – July 2016

- Designed, built and programmed an LED cube from scratch including base PCB and analog circuitry
- Drove 512 LEDs with 3 Atmega328P outputs by chaining shift registers and created easy-to-use C control interface