Aaron Pan

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www.aaronpan.me

TECHNICAL SKILLS

- **Programming:** Proficient in Python and C, Familiar with C++, Java, Perl, Verilog, Assembly, R
- **Web Development:** Experience with JavaScript/Angular, MongoDB, CSS/HTML, NodeJS
- **Tools:** Experience with GitHub, SVN, IntelliJ, Slack, VBA, Vim, MATLAB, Unix

EMPLOYMENT EXPERIENCE

Applications Engineer, *SerDes Technology Group.* — *Xilinx Inc.*

San Jose, CA

May 2016 – Present

- Developing and deploying a FPGA Transceiver test platform for 40+ members of the STG team in Python and Perl, centralizing and automating previously incompatible methods
- Created a NodeJS GUI application and MongoDB database for cross-functional business groups to access STG data and results
- Implemented new features on FPGA-based transceiver controller firmware in C++ for group of 10+ hardware engineers
- As a side project, took initiative to automate STG Lab compressed air use through an Arduino board prototype, resulting in 45% reduction in lab noise and 30% cost savings in air usage

Data Analyst Intern, *Environmental Health & Safety Group.* — *Cenovus Energy Inc.*

Calgary, AB

June – Aug 2014

- Analyzed H&S fleet vehicle utilization data to pinpoint usage patterns and inefficiencies
- Presented results that indicated 43% improvement opportunity, while demonstrating need for more data collection and monitoring
- Worked independently with Asset Group Leads to assess current vehicle situation and desired optimal usage statistics
- Developed Excel Macro tool in VBA for Asset Group Leads to continuously monitor vehicle usage and prevent driver fatigue

ENGINEERING PROJECTS

Embedded Systems and Microcontrollers, *Autonomous Robot Building Project* — *2016*

- Led a team of three to design and construct a robot using hardware components and custom circuits
- Implemented algorithms in Assembly to automatically navigate simulated test environment, detect sticker states, and report results on LCD display within 60 seconds

Arm Movement Detection System, *Engineering Design Final Project* — *2015*

- Integrated a TENS unit, GPS, gyroscope and accelerometer into sleeve using an Arduino board to detect movement
- Design prototype accurately recorded arm movements of Huntington's Disease patients for data analysis

EXTRACIRRCIULARS

Co-Founder, *SHAD Valley Alumni Club, University of Toronto Chapter* — *2014 –Present*

- Created a university chapter, uniting 140+ alumni passionate about STEM, entrepreneurial and business subjects
- Lead a team of 7 to host professional networking events for SHAD Valley alumni in the Toronto area

3rd Place at Accenture Consulting Engineering Competition, *University of Toronto* — *2015*

- Placed 3rd out of 18 teams on a consulting pitch to redesign Toronto's Solid Waste Management Strategy
- Only freshman team to qualify for finals round, and present findings to panel of professional consultants

EDUCATION

B.A.Sc. Candidate in Engineering Science, *University of Toronto* — *2014 - Present*

- **Relevant Curricula:** Computer Algorithms & Data Structures, Digital & Computer Systems, Computer Programming
- **Activities:** Engineers Without Borders, Engineering Ultimate Frisbee Team, Engineering Badminton Team