

JAY VYAS

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4A Computer Engineering

University of Waterloo

Work Experience

Undergraduate Research Assistant

Waterloo University (RESL)
Jan 2016 - May 2016
Waterloo, ON

- > Used ftrace to obtain 250GB/day of kernel function logs
- > Created python scripts to parse generated logs to feed into anomaly detection program
- > Used netcat to send the logs to fluentD through TCP for further processing and redirection to end systems

Software Developer

Genesys Laboratories Inc.
Sept 2015 - Dec 2015
Markham, ON

- > Developed GENHIRE from design stage to deployment using Meteor (HTML, Blaze.js, Node.js, MongoDB)
- > Implemented bug fixes to customer issues and potential threats from KlocWork using C++, tested with SIPP
- > Captured and analyzed Wireshark packets to debug DNS/RTP/H264 protocol issues
- > Improved MP3 audio recording quality

Compiler Optimization Developer

IBM
Jan 2015 - April 2015
Markham, ON

- > Implemented and shipped SSE/AVX functions in VECLIB using POWER intrinsics
- > Created scripts/tools to detect and translate source programs into VECLIB compatible programs
- > Executed functional and performance testing in BE and LE

Software Developer

AppZero
May 2014 - Sept 2014
Ottawa, ON

- > Improved automated scripts for the PACE migration tool
- > Implemented bug fixes for front end (UI) and back end
- > Used python as a rapid prototyping tool to test and implement automation of application discovery
- > Performed system, functional, and performance testing on AppZero using automated and manual testing methods

Education

Sept 2012 - current **Candidate for Bachelor of Applied Science in Computer Engineering**

Waterloo, ON University of Waterloo
> Ranked top 5 in class

Projects

Image Scraper 2015

- > Multi-threaded image scraping tool written in Python capable of downloading all images within a provided URL
- > Independently searches all sub URLs from root URL
- > Extremely quick and light weight, provides user options

Audio Processing 2014

- > Read bit stream from WAV file to create sound on an ARM board
- > Produced audio capable of playing in normal speed, half speed, double speed, reverse, and delay with board interaction

Skill Set

Application:

- > C#
- > Java
- > C / C++
- > Python

Web Development:

- > HTML (+handlebars)
- > JavaScript (+jQuery)
- > Meteor (Blaze.js)
- > Node.js

Hardware:

- > Assembly
- > VHDL
- > BASIC
- > C

Scripting / Databases:

- > Python
- > Batch (DOS)
- > Shell (UNIX)
- > MySQL (SQLite)
- > MongoDB

Environments:

- > Windows
- > UNIX / Linux
- > AIX
- > VMs (Virtual Box)

Version Control:

- > SVN
- > Git
- > Mercurial

Interests/Passion:

- > Learning new technologies
- > Robotics/VEX/AI
- > Scripting/Automation
- > Fitness
- > Sports