Huzefa Fatakdawala

3B Computer Engineering
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PROGRAMMING

C • C++ • Java • Python
C# • Lua • Tacc • VHDL
Obj-C • ARM Assembly

TECHNOLOGIES

Cocoa SDK • OpenGL • Android
svn • perforce • win32 • linux
rtos • posix • gdb • gcc • git

EDUCATION

University of Waterloo
B.A.Sc in Computer Engineering
In Progress | Waterloo, ON

ASSIGNMENTS

Kirsch Edge Detector
Wrote VHDL code to generate hardware on an FPGA that detected all edges in an image.

Circular Queue
An extremely robust implementation of a circular queue written in C for a lab and used by multiple lab groups as part of their project.

Navigator App
Used accelerometer, compass and gyroscope to count footsteps and navigate between two points on a known map.

COURSEWORK

Introduction to Compilers
Computer Networks
Digital Systems Engineering
Operating Systems
Algorithms and Data Structures
Database Systems
Digital Computers and Systems

LINKS

All projects mentioned can be found on my public github profile.
Github:// **chromozonex**
LinkedIn:// **huzefa**

EXPERIENCE

ARISTA NETWORKS | Software Engineer Intern
May 2015 - Aug 2015 | Santa Clara, CA

- Designed a feature that allows a user to attach and apply a PBR policy on an interface that is not part of the default VRF.
- Implemented VRF leaking through use of PBR which allows setting a nexthop address outside of the current VRF.
- Added unit tests to make sure we were able to resolve routes in non default VRFs.

APPZERO SOFTWARE | Software Developer Intern
Sep 2014 – Dec 2014 | Ottawa, ON

- Designed feature to separate out DCOM registry keys being dissolved.
- Implemented a quick fix to correctly handle reparse points during app migrations.
- Added a test to check OS intercepts when docking an application.

CRANK SOFTWARE | Software Developer Intern
Jan 2014 – Apr 2014 | Ottawa, ON

- Designed a native MacOS implementation of the Storyboard runtime using OpenGL rendering technologies.
- Designed and implemented a multiplatform stand-alone launcher for applications created with the Storyboard Designer Tool.
- Created a Storyboard browser plugin that integrated both into the runtime and design environment.

CRANK SOFTWARE | Software Developer Intern
May 2013 – Aug 2013 | Ottawa, ON

- Worked on porting the Storyboard Engine from FreeRTOS to SafeRTOS. Used an embedded board (NXP LPC17xx) for testing the engine.
- Implemented automated testing of Storyboard Engine on embedded targets such as Texas Instruments AM335x running Linux and QNX.

PROJECTS

MUSIC SYNCHRONIZER | Android App for Hack The North
Sep 2015 | Waterloo, ON
Identifies the song being played using sound waves recorded by the mic and attempts to play the same song on the current device in sync with the music.

UW MICRO AERIAL VEHICLES TEAM | Software Lead
May 2013 - Dec 2014 | Waterloo, ON
Analyzed images on an odroid-xu running Ubuntu using the OpenCV framework. Also installed and calibrated SONAR to implement altitude-hold.

WIZDO | Web App for Kik Hackathon
Jan 2015 | Waterloo, ON
Application that lets a user ask and answer a question to the people in roughly the same geographic location as where they are located.

WHACK-A-MOLE! | Android Game
Jan 2014 – Apr 2014 | Ottawa, ON
This is similar to the arcade game "Whac-a-mole". Developed a high score manager that primarily stored the user data in JSON format in persistent memory.