

Huzefa Fatakdwala

Computer Engineer
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PROGRAMMING

C • C++ • Java • Python
C# • Lua • Tacc • VHDL
Obj-C • Golang

TECHNOLOGIES

Unity • win32 • opencv • posix
git • perforce • gcc • gdb
Thrift • Hadoop • ZooKeeper

EDUCATION

UNIVERSITY OF WATERLOO
B.A.Sc IN COMPUTER ENGINEERING
June 2017 | Waterloo, ON

ASSIGNMENTS

DISTRIBUTED KEY VALUE STORE

Used Apache Thrift to make IPC calls that kept all storage nodes consistent and partitioned data correctly.

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 and used by multiple groups as part of their project.

COURSEWORK

Distributed Systems
Cooperative and Adaptive Algorithms
Introduction to Compilers
Computer Networks
Advanced Computer Networks
Operating Systems
Programming for Performance
Algorithms and Data Structures
Algorithm Analysis
Database Systems
Communication Theory

LINKS

Github:// chromozonex
LinkedIn:// huzefa

EXPERIENCE

AMAZON | SOFTWARE ENGINEER INTERN

Sep 2016 - Dec 2016 | Seattle, WA

- Designed and built an internal tool to preview product displays from a new recipe based architecture containing components like text, prime badges etc.
- Worked with the Search Experience team to help migrate components to the new recipe based architecture on the search page.

MICROSOFT | SOFTWARE ENGINEER INTERN

Jan 2016 - Apr 2016 | Vancouver, BC

- Developed an algorithm to detect surfaces in images from depth data retrieved from an Intel RealSense camera.
- Worked with the Prototypes team to determine technological feasibility of potential first party applications for Windows devices such as the Hololens.

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.

APPZERO SOFTWARE | SOFTWARE DEVELOPER INTERN

Sep 2014 - Dec 2014 | Ottawa, ON

- Designed feature to separate out DCOM registry keys being dissolved.
- Fixed bugs to correctly handle reparse points during application migrations.

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.

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.