Sadman Kazi

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SKILLS

PROGRAMMING

Proficient with:
Java • C • C++ • Python

Familiar with:
Javascript • C# • GLSL

APIs & SDKs:
OpenGL • Android • SDL • GTK+

OTHER

Tools:
Visual Studio • Vim • Git • Unix Shell

Game Engines:
Unity3d • Unreal Engine • Godot Engine

EDUCATION

UNIVERSITY OF WATERLOO

Candidate for Bachelor of Software Engineering (Co-op)
2014 - 2019 (Expected) | Waterloo, ON
Relevant Courses:
• Programming Fundamentals
• Introduction to Data Abstraction and Implementation
• Sequential Programming
• Digital Computers

MARC GARNEAU CI

2011 - 2014 | Toronto, ON
Activities:
Founder and President of
• Physics Club (2013-2014)
• Guitar Club (2013-2014)
Vice President of
• Table Tennis Club (2012-2014)

AWARDS

2015
Second Place Mobility Challenge
Fourth Place Microassembly Challenge
IEEE Micro/Nano Robotics & Automation Technical Committee
People's Choice Award
UWaterloo EngHack Winter 2015

2014
President's Scholarship of Distinction
University of Waterloo
First
Math Olympiad, MIST Toronto
Calculus and Vectors Award
Data Management Award
Marc Garneau CI

TECHNICAL EXPERIENCE

D{} LAB

Software Product Prototyper | C • C++ • Python
May 2015 – August 2015 | Kitchener, ON
Worked with an engineering team to develop a real-time communication architecture prototype for large-scale sensor networks from the ground up.

- Worked in a team of two to deploy a mesh network communication system
- Designed and implemented the off-the-cloud software architecture
- Optimized the platform to ensure that data is pushed to the cloud in real time
- Developed an interface for an OLED screen and input registry
- Created a library that processes regular images and shows them on the OLED

UNIVERSITY OF WATERLOO NANO-ROBOTICS GROUP

Controls Team Member | Python • Glade • OpenCV• C#
September 2014 – Present | Waterloo, ON
Part of a small team responsible for controlling the robot through software.

- Implemented the controlling of actuators and magnetic field activation which is used to control a micro robot with gamepad input
- Competed at ICRA 2015 in Seattle as a member of the debugging team
- Currently porting the project to use multiple threads

NOTABLE PROJECTS

3D GAME ENGINE | C++ • GLSL • OpenGL • SDL

April 2015 - Present | Personal Side Project
An open source WIP 3d game engine.

- Currently functional: shader compilation, mesh rendering, game loop for the core engine, keyboard and mouse input handling, and camera control

MYO GUITAR | Java • Android SDK

March 2015 | Developed at EngHack Winter 2015
An Android air guitar app that uses the screen as the frets and a Myo armed hand for strumming.

- Created the algorithms to detect and play the pressed notes dynamically
- Implemented noise filters to mute specific strings when playing specific chords

CITY KIT | Javascript • Google Maps API • HTML • CSS

November 2014 | Developed at the 24 hour Start-up hackathon
An online service that pulls data from Google Maps API and shows localized ads.

- Created the module that serviced ads using the Google Maps API and the geolocation code

MYO PAD | C++ • Myo SDK

November 2014 | Developed at EngHack Fall 2014
A program using the Myo armband that exports drawings/writing on a surface to graphical interface on a computer.

- Created the module that received data from the armband using the Myo SDK
- Developed the main interface that took that data to draw, erase and move the cursor on the screen.

ECLIPSE | Unity3d • C#

July 2014 - August 2014 | Personal side project
An open source 3d game for android made using the Unity3d engine.

- Developed everything independently, including but not limited to scripting, modelling, lighting, and texturing