

Sadman Kazi

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Skills

Languages C++, C, Python, Lua, Java, Rust, C#, Assembly, Javascript, GLSL, Octave, SQL

Technologies OpenGL, Android, STL, Boost, Qt, GTK+, Maven, CMake, Arduino, PostgreSQL, Game Engines: Unity, Unreal

Experience

🔗 NVIDIA

Santa Clara, California

SOFTWARE ENGINEERING INTERN

January 2018 - April 2018

Android Deep Learning Team

- Worked on adding support for Android O of internal deep learning (DL) libraries and video analytics SDK
- Built home security service for Shield TV with offline DL intelligence & HD event recording, from USB & IP camera streams
- Added inference control so SDK apps use up to **90% less GPU**, allowing other applications to run in the foreground

🔗 Wave Computing

Campbell, California

CONTRACTOR

September 2017 - December 2017

SOFTWARE ENGINEERING INTERN

May 2017 - August 2017

System and Architecture Team

- Rewrote & optimized legacy C simulator code to maintainable object-oriented **C++11** code, running **15% faster**
- Added modular CMake builds, multiprocess automated tests & CI pipelines, improving workflow for multiple projects
- Worked on mapping **Keras deep learning models & TensorFlow operators** to C++ models runnable on Wave chips
- Mentored coworkers on how to improve collaboration, code quality & workflow through use of git, code reviews & CI

🔗 Extreme Networks

Toronto, Ontario

SOFTWARE ENGINEER CO-OP

September 2016 - December 2016

WLAN Infrastructure Team - Built REST API in Java for configuring WLAN controllers

- Developed an internal error-handling framework in Java to catch **75% more** errors (previously uncaught)
- Deployed unit (JS/Postman) & functional testing (Python/Selenium) frameworks to increase test coverage by **10x**

🔗 Autodesk Inc.

Montréal, Québec

SOFTWARE DEVELOPER INTERN

January 2016 - April 2016

Autodesk Live - Immersive visualization software for architectural models

- Added support for **multi-format project importing** in Stingray using C++
- Developed licensing, about-dialog, touch-based camera & extended features to native mobile app

🔗 Deloitte Canada

Kitchener, Ontario

SOFTWARE ENGINEER, D{} LAB

May 2015 - August 2015

Real-time communication architecture for large-scale sensor networks (for mining).

- Deployed a **mesh network communication & location tracking system** in Python
- Developed firmware services for capturing sensor data, display rendering & input in Python & C++

🔗 University of Waterloo NanoRobotics Group

Waterloo, Ontario

TECHNICAL LEAD, CONTROLS TEAM

May 2016 - Present

Controls software for microrobot pathing. Currently leading development of the software for ICRA 2018.

- Built the GUI, robot controllers & a **Python scripting engine** in C++
- Led the development of pathing specifications for ICRA 2016 in Python (won **first place**)

Projects

🐙 3D Game Engine C++ • GLSL • OPENGL • SDL

Cross-platform 3D game engine that supports shaders, materials, first person camera, Phong lighting, and scene loading.

🐙 Servo RUST • PYTHON

Open source contributions to Mozilla's high-performance parallel browser engine.

Education

University of Waterloo

Waterloo, Ontario

CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING. GPA 3.4

2014 - 2019 (Expected)

Notable Courses: OS, Algorithms, DB, AI, Data Structures, Architecture, Concurrency, Distributed Computing, Networks.