justingallagher

computer scientist & software engineer

contact

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languages

* C

* C++

* C#

* Java Javascript Python

> SQL SML

technologies

Android SDK Windows SDK Node.js ASP.NET OpenGL

applications

Git LaTeX Vim Microsoft Office Visual Studio Linux Windows

interests

Firmware development Robotics Operating Systems Game Design

technical experience

since 2016 Microsoft Corporation, Software Engineer

Redmond, WA

- Worked with product designers and program managers to improve Microsoft Edge's downloads interface.
- Quickly ramped up with a large codebase to deliver new features and fixes.

2015 **Microsoft Corporation,** Software Engineer Intern

Redmond, WA

- Designed and implemented an analytics tool which allows hierarchical search of XAML file structure using C# and SQL.
- Leveraged telemetry data to actively track the reliability of Windows Phone applications, leading to the discovery of a ship-blocking bug.

2013–2015 **CMU Biorobotics Lab,** Researcher for Dr. Howie Choset

Pittsburgh, PA

- Led a team of 3 students in planning and implementing firmware for JumpingBot, a robot which can self-stabilize in freefall.
- Designed and programmed an Android application which allows realtime sensor data to be accessed in MATLAB and ROS.

education

2013-2016 Carnegie Mellon University

Pittsburgh, PA

Bachelor of Science, Computer Science & Business Administration Minor **GPA**: 3.63/4.00 **Dean's List**: Fall 2013, Fall 2014, Spring 2015

selected projects

2016 **fpga-trace**, 15-418 Parallel Computer Arch. & Programming

- Implemented a ray-tracing renderer using an FPGA to perform highly parallel triangle-ray intersection tests.

- My method yielded a nearly 2x performance improvement and increased power efficiency versus a SIMD enabled CPU implementation.

2015–2016 **course-api,** Scottylabs

Pittsburgh, PA

Pittsburgh, PA

- Developed a set of Python scripts that provide developers access to CMU course schedules, descriptions, and student evaluations.

2013 **CMUEats,** HackCMU

Pittsburgh, PA

- Wrote the backend for a web application that tracks the hours of CMU dining locations using Python, Django, and MongoDB later ported to Node.js.
- A year later, the app maintained more than 400 daily hits from students.

other experience

2014-2016 **Scottylabs**

Pittsburgh, PA

- Helped to organize and operate Tartanhacks, a hackathon of 350 students from the Pittsburgh area.

2013 **Eagle Scout,** Boy Scouts of America

Amherst, NH

- Brainstormed, planned, and executed a service project that supplies used eyeglasses to developing countries. Over the course of the project, I raised more than \$650 and managed 38 volunteers.