justin**gallagher**

computer scientist & software engineer

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languages

⋆ C++
⋆ C#
⋆ C
⋆ Java
Javascript
Typescript
Python
SQL

technologies

Windows SDK
Android SDK
Node.js
ASP.NET
OpenGL

applications

Git
LaTeX
Vim
Microsoft Office
Visual Studio
Linux
Windows

interests

App development
Operating Systems
Firmware development
Robotics

awards

University Honors
Dean's List: Fall 2013,
Fall 2014, Spring 2015
Eagle Scout

technical experience

2018–	**Microsoft Corporation,** Software Engineer II	Redmond, WA

- Delivered a crucial servicing update for Microsoft Edge, working with program manager, writing, and legal teams to protect user privacy.

2016–2018	**Microsoft Corporation,** Software Engineer	Redmond, WA

- Implemented top user requests in Microsoft Edge's downloads interface such as "Save As" and download speed data.
- Drove the development of new APIs to control window and tab behavior in Windows, alongside partner teams in the Windows shell and web platform.
- Developed new web APIs through a Typescript browser extension.

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

selected projects

2017	**Edge Data Diff,** Microsoft Oneweek Hackathon	Redmond, WA

- With a team of six developers, created a browser extension that analyzes differences in online data by comparing HTML divs.
- Received the "Most customer centric" prize from the Data & Analytics team, and an honorable mention from the Microsoft Edge team.

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

- 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

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