Dilraj Devgun

dilrajsinghdevgun@gmail.com | (425) 279 3444

github: github.com/Dilraj-Singh-Devgun | portfolio: thejarlid.github.io

EXPERIENCE

Software Engineer (HoloLens Firmware and Drivers Systems Team)

Microsoft | Redmond, WA | August 2019 - Present

- Worked on firmware for the SoC and HPU which is a custom ASIC for the HoloLens, government IVAS project, as well as our future Mixed Reality devices
- Helped my team integrate sensors, write drivers, and provide higher level APIs for consumers such as the Calibration, Tracking, and Vision teams
- Improved frame rate for our IVAS camera by 3x by implementing a shared memory buffer pool library
- Inherited ownership and continued to develop and maintain a set of internal C++ tools used by teams throughout the HoloLens stack to record data into a custom binary file format alongside features to analyze, dump, and replay the data.

Software Engineering Intern

Microsoft | Redmond, WA | Summer 2018

- Interned on the Universal Store Team under the Cloud + AI division developing a VSTS extension used to model service architecture
- Developed an Azure hosted web application that aggregated data from external endpoints into a central location for users using .NET Core, Angular, and C#

Operating System and Hypervisor Research

University of Washington CSE | Seattle, WA | 2017 - 2018

- Worked alongside Professor Tom Anderson to extend an Operating System into a new lightweight hypervisor that provides greater flexibility to both applications and guest OS
- Designed and implemented a user-level thread system that interacts with the kernel via donated physical processors and timer events that reschedules at user-level, unlike a traditional model

iOS Developer

Clockwork Development, LLC | Bellevue, WA | 2014 - 2016

- While in high school I designed and developed an app which Apple featured on the App Store as Best New App in Germany, Sweden, and Austria

CSE 451 and 143 Teaching Assistant

University of Washington CSE | Seattle, WA | 2017- 2019

EDUCATION

University of Washington

Seattle

Computer Science | 3.75 | 2015 - 2019

AWARDS

WA State Honors

AP Scholar Award with Distinction

Best New App by Apple (Germany, Sweden, Austria)

Annual Dean's List ('15 - '16, '17 - '18, '18 - '19)

SKILLS

Technical Skills

iOS Development

Swift

Objective-C

Java

C

C++

C#

SQL (Azure, AWS)

Web Development

Python

Systems Development

UI/UX Design

Functional Programming

.NET ASP

Machine Learning

Data Science

Interpersonal Skills

French

Project Management

Teaching