

ALEXANDER VALLEJO

<https://vallejo.dev>

GitHub: valleyjo

EMPLOYMENT

Senior Software Engineer **Microsoft Corporation** **Jan 2018 - Present**

Azure Compute – Fabric Controller

- Building the next generation container management platform for Azure Compute
 - Designed, spec-d and lead implementation for multiple workstreams
 - Designed and built a method for exposing transactionally consistent container data sourced from multiple microservices
 - Built notifications for customers when their container experiences availability issues
 - Built integration with the deployment health system to ensure containers remain healthy during rollouts
 - Built container repair capabilities to recover containers when they become faulted
- 99% reduction in single points of failure for control plane clusters via building a fault domain analysis service
- Built a capacity analysis service to proactively identify and mitigate control plane machine shortages
- Built a lightweight distributed tracing framework and integrated it across micro-services

Software Engineer **Microsoft Corporation** **October 2015 – Dec. 2017**

OneDrive – Sync Client (Mac and Windows)

- Built a feature to help users move local content to OneDrive
- Built automatic screenshot upload for the Mac sync client
- Built a context menu for the Mac Finder that provides quick access to OneDrive features (share a link, view online, manage storage, choose folders to sync, etc...)
- Built a share dialog that allows users to control sharing options for their files without leaving Finder or Windows Explorer

Software Engineer, Intern **Microsoft Corporation** **Summer 2014**

- Implemented notifications for users of OneDrive who have expiring/expired bonus storage

EDUCATION

Pittsburgh, PA **University of Pittsburgh** **Fall 2011 – Spring 2015**

- Bachelor of Science (B.S.) in Computer Engineering. Cum Laude.
- Cumulative GPA: 3.49 out of 4.0

TECHNICAL EXPERIENCE

Personal Projects

- Orgman. Automate the organization of your student organization. Production quality web app with a full test suite using continuous integration (Travis CI). Ruby on Rails. Source: <https://github.com/valleyjo/orgman>
- MIPS CPU. Full implementation of the MIPS instruction set. Includes five pipelines, L1 cache and interrupts. HDL Designer & VHDL.

Languages and Technologies

- Languages: Proficient: C#; A bit rusty: C++, Objective-C; Prior experience: Java, Ruby, Python, PowerShell
- Technologies: distributed systems, Paxos, gRPC, Bond, .net 5, Win API, Cocoa, Ruby on Rails, git, Windows Internals

LEADERSHIP EXPERIENCE

Intern Mentor 3x **Microsoft Corporation** **Multiple Summers**

- Provided guidance and technical advice for an intern working on a production project

Engineering Peer Advisor **University of Pittsburgh** **Fall 2013**

- Taught two sections of an official university course to assist freshmen with their college transition

HONORS AND AWARDS

Eagle Scout: Leadership project established a computer lab at Angels' Place

Distinguished Young Alumni Award: Our Lady of the Sacred Heart High School