

Calvin Gagliano

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C++, C#, Python

Experience

Amazon Web Services, Inc. - Software Development Engineer II (Directory Service) *April 2024 - Present, Seattle, WA*

- Designed an agent in .NET 8 that runs on Microsoft Active Directory instances that monitors and reports unhealthy activity to an API Gateway backed by an AWS Lambda
- Developed a testing framework in C# and collaborated to make tests that are ran every minute on 100s of EC2 instances which report results to control plane for analysis, actions, and alarms
- Took ownership of Hybrid directory monitoring which involved creating supporting features across multiple AWS accounts, fixing issues with pipelines and infrastructure as code (IaC), creating integration tests, and organizing and prioritizing bugs
- Wrote Python script to modify the retention policies of millions of production directory instances' log groups
- Developed feature for an internal API for getting Active Directories with multiple different instances states from DynamoDB
- Won a runner-up award in the 2024 AWS Identity Hackathon for making a proof of concept of using Directory Service to authenticate/authorize Amazon's Bedrock GenAI to access different resources

Microsoft Corporation - Software Engineer II (Visual Studio Debugger) *July 2020 - April 2024, Redmond, WA*

- Developed the full end-to-end experience for [Dependent Breakpoints](#) for Visual Studio 2022 which is used ~100k times monthly and received [great responses](#) and a CSAT score of 85
- Designed and built [Breakpoint Groups](#) which required prioritizing and managing tasks, bugs, and testing for two other software engineers and resulted in delivering by expected date
- Created Temporary Breakpoints which involved refactoring the debugger's glyph APIs and designing a better algorithm for persisting breakpoints using C# and C++
- Proposed and completed implementation of telemetry and dashboards for dependent breakpoint groups, nested breakpoint groups, and certain advanced breakpoint types
- Wrote new API for gathering data from an exception's callstack for use with the debugger's AI (Copilot) exception helper
- Implemented [data breakpoint](#) support for the VS Code C++ extension for GDB scenarios [\[link to PR\]](#)
- Responsible for managing the VS Diagnostics (~50 people) main branch which involves forward/reverse integrations weekly, investigation and triage of issues
- Represented the debugger teams as the D&I Champ to organize events and advocate for more inclusion within VS Diagnostics
- Created a method for determining if memory is owned purely by a debugger-generated TypeProxy managed object or by the debuggee process which saved the debugger from displaying an incorrect error message 100+ times per month

Oregon State University - Teaching Assistant (Undergrad CS) *September 2018 - March 2020, Corvallis, OR*

- Taught universal coding concepts, basic data structures, and object-oriented programming using C and C++ in Oregon State University's year-long introductory CS 16X course series
- Led and delivered weekly live-coding demos on topics such as pointers and recursion to lab sessions enrolling 20+ students

Microsoft Corporation - Software Engineer Intern (Azure CodeSign) *June 2019 - September 2019, Redmond, WA*

- Developed a Docker image to componentize sign tools and custom key storage provider to enable portability
- Used Powershell, C#, and .NET to create, schedule, and deploy sign jobs between container instances, which delivered proof of concept for Azure signing service that currently signs ~3 billion files monthly

Kaiser Permanente - Software Engineer Intern (Claims Processing) *June 2018 - September 2018, Portland, OR*

- Created REST API routes using Node.js and Express.js to deliver results from thousands of tests every day
- Developed major full stack features with Angular.js such as bookmarking test cases and a 1-click-run button

Education

Oregon State University - Computer Science, B.S. (3.92/4.00 GPA) *September 2016 - June 2020, Corvallis, OR*

- Revived the Association for Computing Machinery chapter as President and handled weekly meetings, company hiring/information events, and competitive programming practicing which rose membership from 4 people to 100+ in 1 year
- Majored with a Systems focus and minored in Mathematics, volunteered with the EECS Graduation Celebration Board
- Achieved 1st place in Oregon at ICPC Pacific Northwest 2019