

Nicholas Ceccarelli

Software Engineer

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I am a software engineer with experience in frontend, IoT edge, and backend development. I have developed .NET microservices orchestrated with Kubernetes, Azure IoT Edge modules in C# and Python housed in Docker containers, iOS apps with SwiftUI, and Azure Infrastructure using Terraform. I also have experience in systems programming in C and C++ and frontend web development in React and Razor Pages.

WORK EXPERIENCE

Full Stack Software Engineer, Moog Inc.

Aug. 2021 - Present

- Contributed to PI and sprint planning for the department
- Discussed requirements with users, ran A/B tests, and made improvements from feedback
- Owned features from ideation and diagraming to development, testing, and deployment

Platform/Backend Experience

- Created a **platform of microservices to manage and display hierarchy, messaging, telemetry, state, & errors** from edge devices, which can be applied to any IoT project, and is exposed via an API
- Taken ownership of Microsoft Azure infrastructure deployments via Terraform. This solution emphasizes code reusability by treating Azure resources as objects
- Taken ownership of CI/CD process for infrastructure and code deployments using Azure DevOps build and release pipelines, Docker containerization, and Kubernetes orchestration

IoT Edge Experience

- Developed an extensive framework of **telemetry-collecting edge modules** for a wide variety of edge devices including vehicles and factory equipment that can be customized for clients

Frontend Experience

- Taken **ownership of an SwiftUI-based iOS app** to display entities and telemetry data using tables and charts. The app also allows users to report information about edge devices.
- Contributed to a Razor Pages website with the same objectives as the iOS application

Software Engineering Intern, Moog Inc.

July 2020 - May 2021

Software Engineering Consultant, Ox Intel

May 2020 - Aug. 2020

- Developed a minimum viable product GUI & data storage system for a data-intensive application, which resulted in obtaining a \$50,000 Department of Defense grant
- Assisted the Ox team by teaching the basics of software development & cloud computing

EDUCATION

Boston University

Expected May 2024

*Master of Science, **Software Development***

University at Buffalo, The State University of New York

Graduated May 2021

*Bachelor of Science, **Computer Science**, Software Systems Focus*

GPA: 3.96/4.00

*Bachelor of Arts, **Mathematics***

PROGRAMMING PROJECTS

Social Media React Website

Jan. 2021 - May 2021

- Developed a React-based social media platform centered around images
- Worked on a team of five for a Human-Computer Interaction class

C-Standard Compliant Memory Allocator

Apr. 2019

- Implemented `malloc()`, `calloc()`, `realloc()`, & `free()` memory allocation functions for the C language
- Utilized a multi-pool approach for small allocations & a bulk approach for large allocations

SKILLS

Languages (in order of proficiency): C#, Python, Swift, C++, C, Java, JavaScript

Enterprise skills: Agile & SAFe Development, Unit & Integration Testing, Azure DevOps (incl. CI/CD pipelines)

Frameworks & Environments: .NET 6.0, ASP.NET Razor Pages, SwiftUI (iOS), Android Development, React

Azure technologies: IoT Hub, CosmosDB, Storage Account, Key Vault, VM, AAD, Logic Apps, Function Apps

Other technologies: Kubernetes, Docker, Terraform, Terragrunt, Dapr, Helm, Git Version Control, Bash Scripts

Also proficient in: System Design, Team Management, Collaboration, Communication