Carl Matthew Eberhart

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Skills

- API Development
- C# / .NET CORE
- Microservices Architecture
- CI/CD

- Cloud Infrastructure - Azure
- Python
- Kusto Query Language
- Reliability Investigation

- Distributed Systems
- SQL
- Large Scale Data Processing
- Spanish - Fluent

Experience

Microsoft

Software Engineer II, Azure Cost Management　　　　　　　　　　September 2023 - Present
- Implemented a service to queue jobs and maintain their status with Azure Functions and Service Bus messaging
- Onboarded new datasets to our internal data processing system powered by SQL and Spark / Azure Synapse
- Improved reliability of my service by migrating from SQL based shard map to microservice based shard map
- Acted as primary contact and reviewer for co-development efforts of my service by teams in India
- Mentored and onboarded interns and new employees

Software Engineer, Azure Cost Management　　　　　　　　　　May 2021 - September 2023
- Automated service build outs and releases across test, canary, and various multi-tenant production environments
- Drove package development to build consistent authorization and rate limiting experiences across services
- Designed and implemented, an asynchronous API powered by Azure Durable Functions and Blob Storage
- Championed reliability investigations, BCDR reviews, repair items, and release freshness of my service
- Participated in team on-call rotations for API, scheduled report delivery, and large data processing services
- Defined monitor requirements and thresholds to detect reliability drops, traffic anomalies, and dependency failures

Software Engineer Intern, Azure Cost Management　　　　　　　　May 2020 - August 2020
- Proposed a rate limiting solution that maintained active requests per URL in Azure Cosmos DB with TTL
- Provisioned Azure App Service and Azure Cosmos DB to host my prototype solution
- Implemented a middleware to parse incoming URL, manage request counts, and rate limit the caller

Software Engineer Intern, Azure Marketplace　　　　　　　　　May 2019 - August 2019
- Developed a REST API with C# / .NET CORE and Azure Cosmos DB for a permission request / approval feature
- Implemented the UX to request / approve permissions via my API in Knockout JS / Typescript
- Deployed the API and UX to our TIP environment - Feature was shipped later that month

Explorer Intern, Windows　　　　　　　　　　　　　　　　May 2018 - August 2018
- Wrote project spec for XAML charting tools for use in UWP application
- Developed XAML charting tools with C# and XAML

TwinThread

Software Engineer Intern　　　　　　　　　　　　　　　　May 2017 - August 2017
- Developed web applications using React and Redux
- Implemented API to fetch and download files from Azure Blob Storage

Education

Virginia Polytechnic Institute and State University

Bachelor in Arts: Spanish　　　　　　　　　　　　　　　August 2016 - December 2020
Minors: Computer Science and Mathematics