

EXPERIENCE

Senior Software Engineer **Microsoft Corporation** **June 2020 – Present**

- Contributed to GitHub Codespaces, a cloud-powered development environment supported by Azure services, handling **250,000+** daily environment creations and resumes, driving cross-functional collaboration to enhance platform stability and scalability.
- Led the design of an automated pool scaling system using Azure Queue Storage, cutting operational costs by **\$3M/year** and achieving **99.9%** reliability through dynamic scaling and automated failovers.
- Architected an asynchronous queue-based notification system, improving resource allocation by **30%**, enhancing error detection, and boosting operational efficiency by **25%** through detailed failure reporting.
- Championed a cross-team initiative to optimize alert mechanisms and implement automatic failovers, reducing **Time to Detect (TTD) to under 5 minutes** and achieving **near-instant Time to Mitigation (TTM)** through automated processes.
- Spearheaded efforts to optimize the Codespaces codebase, enforcing strict coding standards and enhancing CI pipeline integration, resulting in a **50% reduction** in CI/CD runtime and significantly improving code quality and developer productivity.

Software Development Intern **Amazon Inc.** **June 2019 – August 2019**

- Developed and launched highly-scalable internal service (**1000 TPS**) based on service-oriented architecture (SOA) using various AWS technologies like DynamoDB, Lambda, S3, etc. (Java, Python, SQL, shell).
- Automated data migrations with distributed job scheduling and built a responsive single-page application (SPA) in React.js for the service which is used for analytics.

Software Engineer, R&D **Sandvine Technologies** **June 2016 – July 2018**

- Automated parameter calibration in fuzzy control system by developing service using C++ capable of monitoring network traffic over **100,000 locations**.
- Designed REST APIs for traffic shapers in C++, enabling dynamic policy enforcement without system reloads, **saving 9 hours** of maintenance time per month.
- Developed hash map and timers based internet traffic classification mechanism in C++ improving identification of applications that rely on third-party services by **90%** (on average).

EDUCATION

College Station, TX **Texas A&M University** **August 2018 – May 2020**

- Master of Computer Science, GPA: **4.0/4.0**

Calicut, India **National Institute of Technology** **July 2012 – May 2016**

- Bachelor of Technology in Computer Science and Engineering, GPA: **9.37/10.0**

PROJECTS

- **Reverse Image Captioning:** Created a [Generative Adversarial Network \(GAN\)](#) that generates images from textual descriptions, utilizing Python and PyTorch to produce accurate, description-fitting visual outputs.
- **Deep Person Re-Identification:** Developed occlusion immune [Re-Id model](#) using Random Erasing and reduced pose variation influence by using Pose normalized Generative Network(GAN). (Python, PyTorch)

LANGUAGES & TECHNOLOGIES

- C++, C#, Java, C, Python, MySQL, Shell Scripting, JavaScript, PHP, HTML, CSS
- Dynamo DB, Cosmos DB, Kubernetes, Azure Queues, S3, Lambda functions, Elasticsearch