

Supreet Deshpande

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA, USA Expected December 2022
Master of Science in Information Networking (Grade: 3.78/4)
Relevant coursework: Distributed Systems, Storage Systems, Cloud Infrastructure, Information Security

Pune Institute of Computer Technology, Pune, MH, India July 2013 - May 2017
Bachelor of Engineering in Information Technology (Grade: First class with distinction)
Relevant coursework: Cloud Computing, Operating Systems, Database Management Systems

WORK EXPERIENCE

Nutanix Inc. San Jose, CA, USA
Software Engineering Intern | Go, Docker, Kubernetes May 2022 - August 2022

- Implemented OpenID Connect compliant authorizer in Docker distribution for Nutanix's Container Registry.
- Integrated the authorizer with multiple Identity providers - Okta, Keycloak, and Azure Active Directory.

Espressif Systems Pune, MH, India
Senior Software Engineer | Go, AWS, Serverless July 2021 - August 2021

- Conceptualized and implemented ESP-Insights, a debugging cloud for IoT devices aiding IoT device makers in identifying and fixing bugs within days of production deployment.
- Designed the backend on AWS to process the device logs and metrics from ~2 million IoT endpoints.
- Led the cross-functional third-party integrations team for Espressif's IoT cloud. (Products - [Alexa smart home skill](#) & [Google smart home action](#))
- Joined after series A, Espressif raised an IPO (\$2Bn) in Aug 2019 with only 200 employees.

Software Engineer | Go, C, Python June 2018 - July 2021

- Implemented secure-boot, a core security feature in the open-source ESP-IDF. Contributions: [\[Core\]](#), [\[Tool\]](#)
- Maintained the cloud SDKs supporting Microsoft Azure IoT cloud, GCP IoT core, and AWS IoT cloud.
- Enhanced the client libraries for HTTP, TLS, MQTT, and Over-the-air updates (OTA). Contributions: [\[Link\]](#)
- Collaborated with the university hiring team to design the training program, devise tests & organize sessions.

Dell-EMC Pune, MH, India
Software Engineer | Go, AWS, Microservices August 2017 - June 2018

- Orchestrated backup and disaster recovery in a multi-cloud environment.
- Added network configuration support and file-level recovery during restoration, and won the Dell EMC Silver Award 2018 for this feature.

Project Intern | Go, C, AWS June 2016 - May 2017

- Developed a Software-Defined Wide Area Network (SD-WAN) controller facilitating centralized network policy management.
- Awarded 3rd prize in the Network and Security among 250 participants at Impetus and Concepts 2017.

SKILLS

Programming Languages: Go, C, C++, Python, Java

Technologies: AWS (Cloudfront, API Gateway, EC2, S3, Cognito, DynamoDB, Timestream, Lambda, Kinesis, SQS, IoT Core, Serverless Application Repository), RDBMS, SQL, NoSQL, Docker, Kubernetes, Jenkins, Elasticsearch, Apache Kafka, Serverless, Microservices, Wireshark, GDB, Git, REST APIs, OAuth, JWT, OpenID.

OPEN SOURCE CONTRIBUTIONS

Solved numerous Github issues, answered forum questions, and reviewed external pull requests at Espressif.

- **Esp-Tool:** [\[Contribution\]](#) - Added tooling support in python for secure boot.

- **Amazon FreeRTOS:** [\[Contribution\]](#) - Enhanced just-in-time provisioning (JITP) in upstream Amazon FreeRTOS.