Ashwin Sekhari

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PROFESSIONAL SUMMARY

Software Engineer with experience in building & maintaining scalable distributed systems at AWS Lambda, handling millions of transactions per second. Proven experience in security-focused feature development and machine learning applications.

EXPERIENCE

Software Development Engineer 2 - AWS Lambda   December 2024 – Curr
Amazon Web Services — AWS Lambda - Invoke   Seattle, WA
- Part of a team managing AWS Lambda's data plane gateway, implementing features like rate limiting, load-shedding, and authorization, and orchestrating the execution of Lambda functions. This high-scale, distributed system consistently handles up to **8 Million** transactions per second.

Software Development Engineer - AWS Lambda   July 2023 – November 2024
Amazon Web Services — AWS Lambda - Control Plane   Seattle, WA
- Led a cross-functional team of **6 SDEs** to design, and launch Lambda's Attribute-Based Access Control feature for Code Signing Config, and Event Source Mapping resources. This enabled AWS customers to authorize resources using tag-based policies for Lambda resources through the AWS Console, APIs, CLI, and SDK.
- Actively Collaborated with Product Managers during the project, as this was a highly sought-after feature.
- Worked as a part of the Control Plane team, which owned Lambda's GDPR workflow, Trusted Advisor recommendations, Authorization, and routing layer for all Control Plane APIs.

Graduate Student Researcher   Sept 2021 – June 2023
University of California, Davis — Advisor: Prof. Prasant Mohapatra   Davis, CA
- Explored the adversarial robustness of deep clustering models and published the **first black-box attack** on deep clustering models. The attack uses Generative Adversarial Networks (**GANs**) to generate adversarial noise, which, when added to benign images, results in a $\geq$**99%** performance drop for SOTA deep clustering models.
- Presented the research titled "On the Robustness of Deep Clustering Models: Adversarial Attacks and Defenses" at the Thirty-sixth Conference on Neural Information Processing Systems (**NeurIPS 2022**) held at New Orleans.

SDE Intern - Amazon AI   June 2022 – Sept, 2022
Amazon Web Services — AWS SageMaker   Seattle, WA
- Developed an event-driven, scalable system automating cleanup of resources from failed Machine Learning training jobs, handling **thousands** of concurrent failures in production, saving **5** days of engineering effort each quarter.

Engineer - API Server   July 2021 – Aug 2021
Udaan.com — Technology and Product Unit   India
- Part of the team responsible for maintaining the operational health of the frontend API Server, which handled **500k** requests per minute
- Repaired and migrated several high-traffic APIs (handling 60% of total traffic) to **Kotlin Coroutines** and prevented them from blocking the application's main thread, which resulted in 30% reduction in latency.

SKILLS

Technical Languages: Python, Java, C, C++, SQL, Go, JavaScript
Developer Tools: React, Flask, Git, Docker, Google Cloud Platform (Skill Badges), CouchDB, Amazon Web Services
Soft Skills: Ownership, Dive Deep, Learn and Be Curious, and Think Big.
Leadership positions: AWS Security Guardian, Change Management Bar Raiser, Intern Mentor.

EDUCATION

University of California, Davis   Davis, CA
M.S. in Computer Science, GPA: 4.0/4.0   Sept 2021 – June 2023
National Institute of Technology, Rourkela   India
B.Tech in Computer Science and Engineering, GPA: 3.7/4.0   Aug 2017 – June 2021

PUBLICATIONS

[1] **On the Robustness of Deep Clustering Models: Adversarial Attacks and Defenses** (NeurIPS 2022)
[2] **Updatable Clustering Using Patches** (UpML-ICML 2022)
[3] **Entangled Blockchains in Land Registry Management** (Feb 2019)
- Presented at *Workshop on Blockchain Technologies and its Applications* at IIT Bombay, India.
- Poster at *Advanced School in CSE: Blockchains and Cryptocurrencies* at IIAS, Israel (Dec 2018).