Ashwin Sekhari

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EDUCATION

University of California, Davis — Davis, CA
M.S. in Computer Science, GPA: 4.0/4.0 (In required academic coursework) — 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

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**.
- Serving as the AWS Security Guardian, raising the bar for security reviews and safeguarding critical team launches.

Software Development Engineer - AWS Lambda — July 2023 – November 2024
Amazon Web Services — AWS Lambda - Control Plane — Seattle, WA
- Tech Lead responsible for designing, executing, and launching Lambda's Attribute-Based Access Control feature. Enabled customers to manage and add tags, and tag-based policies to Lambda event source mappings and code signing configurations through the AWS Console, APIs, CLI, and SDK.
- Launch Announcement: AWS Lambda Tagging Feature

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, Louisiana.

SDE Intern - Amazon AI — June 2022 – Sept, 2022
Amazon Web Services — AWS SageMaker — Seattle, WA
- Developed as a part of AWS SageMaker Training team a **scalable and reliable system** (called Resource Janitor) to automate cleanup for leaked resources for failed managed Machine Learning training jobs.
- Resource Janitor can **successfully handle 1000s of failed jobs** and, as a result, improves customer experience, saves valuable dev hours and cost to AWS, and plays a crucial role in maintaining the SageMaker Training platform healthy.

Engineer - API Server — July 2021 – Aug 2021
Udaan.com — Technology and Product Unit — India
- Improved the health of the API Server (handling 500k requests per minute) at **Udaan.com: India's fastest growing unicorn startup / B2B e-commerce platform.** Identified degradations and abnormal behavior.
- Repaired and migrated several high-traffic APIs (handling 30-40% of total traffic) to **Kotlin Coroutines** and prevented them from blocking the application's main thread which resulted in 20% reduction in latency.

SKILLS

Technical Languages: Python, Java, C/C++, SQL, JavaScript, HTML/CSS, Go, Kotlin
Developer Tools: React, Flask, Git, Docker, Google Cloud Platform (Skill Badges), CouchDB, IntelliJ IDEA, AWS
Communication: English (fluent), Hindi (native), Punjabi (spoken)
Soft Skills: Leadership (Student Mentor (3 years), Technical Lead (Competitive coding club)), Teamwork (Google DSC)

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).