

Ishaan Sathaye

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US Citizen

EDUCATION

- **Georgia Institute of Technology** Atlanta, GA
MS in Computer Science, Computing Systems August 2025 – Present
- **California Polytechnic State University, San Luis Obispo** San Luis Obispo, CA
BS in Computer Science September 2021 – June 2025

EXPERIENCE

- **Cisco Systems, Inc.** San Jose, CA
Software Engineer July 2025 – Present
 - **Per-NHE Counter Streaming:** Built a refactored Redis-backed producer, stats module, and consumer path that scaled to 1,000 next-hop groups and 32,000 counters in 1.09 ms by returning fully joined counter data in batched responses, replacing 1,000 point reads with 10 scans.
 - **Policy-Based Streaming Separation:** Delivered an end-to-end streaming enhancement for a large hyperscaler, extending data publishing, versioned Redis storage formats, APIs, and cross-component test layers to stream IPv4 and IPv6 counters independently.
 - **IPC Optimization:** Replaced RabbitMQ-based IPC with Redis keyspace pub-sub, eliminating a fragile third-party dependency, reducing the process's memory footprint as measured with perf, and simplifying the component's data configuration-change pipeline.
 - **Observability Framework:** Exposed component-level Redis lookahead-queue and other throughput metrics through YANG streaming, enabling automated RCA and faster debugging using function call graphs.
- **Lucid Motors** Newark, CA
Software Engineer Intern June 2024 – September 2024
 - **Infrastructure Automation:** Built Go-based VM orchestration system with automated scheduling workflows, reducing cloud infrastructure costs by \$4,200/month across production and development environments.
 - **Storage Cost Optimization:** Developed Python analytics tool to identify and optimize S3 storage patterns, achieving 20% cost reduction through lifecycle policy automation.
- **Amazon Web Services Inc.** Herndon, VA
Software Engineer Intern June 2023 – September 2023
 - **Enterprise Security Integration:** Enhanced AWS-Keycloak integration by implementing NIST-compliant authentication flows in TypeScript, streamlining secure service connectivity for internal developers.
 - **Zero-Downtime Database Security:** Architected port obfuscation system with dynamic ECS task and RDS configuration updates, achieving rolling deployments with minimal service disruption.
- **Amazon Web Services Inc.** Herndon, VA
Software Engineer Intern June 2022 – September 2022
 - **Event-Driven Serverless Architecture:** Built Python serverless application using Lambda, DynamoDB, and CDK to automate meeting workflows for 50,000+ employees with sub-second response times.
 - **CI/CD Pipeline Integration:** Designed GitLab-to-CodeCommit mirroring pipeline, automating cross-platform code synchronization and deployment workflows.
- **California Polytechnic State University** San Luis Obispo, CA
Research Assistant September 2023 – June 2024
 - **Deep Learning for Microscopy:** Developed CSB-Deep neural network model for computational microscopy, reconstructing high-resolution images from sparse wide-field data.

PROJECTS

- **doke:** Interactive Rust/WASM neuroscience explorer with a wgpu renderer that visualizes the Allen Human Reference Atlas across brain, neural-circuit, and synapse scales.
- **finn:** Always-on market intelligence agent with an LLM reasoning layer, reverse-engineered Robinhood prediction-market workflows, and automated execution/reconciliation loops for event-contract opportunities.