Saahil Parikh

Software Engineer

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Experience

- **Amazon Web Services** — Seattle, WA
  Software Development Engineer 2 – Elastic MapReduce — *2022 – Present*
  - **Distributed systems**: Design and operate multiple microservices spanning EMR cluster orchestration, inter-node communication, resilience, and recovery across a high-scale distributed fleet.
  - **LLM ecosystem**: Maintain a prompt-optimization library, author an MCP (Model Context Protocol) server, and ship vector-database integrations across the LLM stack.
  - **Diagnostics tooling**: Mentored an intern to build a node-state diagnostics tool, materially reducing time-to-mitigation on customer escalations.
  - **Disk-pressure resilience**: Designed a heuristic disk-management policy that preserves customer data integrity during node instability under high disk pressure.
  - **Cluster start latency**: Drove cross-team efforts to investigate and improve key business metrics, including cluster-start latency.
  - **Release process**: Established the team's patch-testing and release documentation process, raising production deploy quality.
  - **Configuration**: Extracted on-cluster configuration into dedicated files, improving operational flexibility across the service.
- **Amazon Web Services** — Seattle, WA
  Software Development Engineer Intern – Elastic MapReduce — *2021*
  - **Finite-state-machine analysis**: Extended an internal FSM analysis tool for cluster behavior; cut day-long analysis runs to ˜16 seconds end-to-end.
- **The Boeing Company** — Los Angeles, CA
  Software Developer Intern – Ground Systems & Satellites — *2018*
  - **Satellite simulation**: Built proprietary satellite simulation software; wrote the communication interface and packet decryption algorithm.

Selected Projects

- **Choose Your Own Adventure** – AI-powered text adventure with turn-by-turn narrative, scene art, and voice. LangGraph, Amazon Bedrock (Claude, Nova Canvas), Polly; Stripe-billed. [live]
- **Distributed Protocol Visualizer** – Interactive Raft visualizer with seeded, deterministic browser simulation; log replication, commit rules, term handling, scrubbable playback. [github]

Research

- Saahil Parikh, Yi Wang. "*Dynamic Decentralized Line-of-Sight Rapidly-Exploring Random Trees for Multi-Agent Safety Planning.*" UC Berkeley, 2022.
- Saahil Parikh, Jason Li. "*Bluetooth Low Energy Controlled Quadcopter on the nRF52 Embedded Board.*" UC Berkeley EECS149, 2021.
- Saahil Parikh. "*Using Artificial Intelligence to Determine the Veracity of News Outlets.*" 2019.

Education

- **University of California, Berkeley** — Berkeley, CA
  B.S. Computer Science · B.S. Electrical Engineering – Regents' Scholar — *2019 – 2022*
- **Georgia Institute of Technology** — Atlanta, GA
  M.S. Computer Science – Computing Systems specialization — *2023 – 2026 (Expected)*