Hersh Patel

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Experience

Amazon Web Services (AWS)

Senior Software Engineer - IoT FleetWise • August 2023 - June 2024
- Led 9 engineers, across 4 teams, to deliver a vision systems data (camera, LiDAR, Radar, etc.) transformation, enrichment, and storage feature; unblocked 4 critical customers' adoption of FleetWise in production vehicles
- Built a high-throughput telemetry data ingestion pipeline with Kinesis Firehose and EMR Serverless to batch data into files stored in Amazon S3 as per customers' data format, partitioning, and compression specifications
- Mentor and guide 8 junior engineers in technical design, coding/operational best practices, and career mobility

Founding Software Engineer - IoT FleetWise • March 2021 - August 2023
- Designed and built a native vehicle registry service, allowing customers to collect data from fleets with 10k+ vehicles
- Integrated AWS CloudFormation with FleetWise so customers could manage resources via infrastructure-as-code
- Conducted critical operational readiness testing (load, chaos, penetration) for FleetWise's GA launch, which led to the discovery and resolution of 6 critical bugs
- Host and present weekly lunch and learns across the organization to promote knowledge sharing

Founding Software Engineer - IoT SiteWise • August 2019 - March 2021
- Implemented 14 of 22 serverless REST APIs in Go and achieved 99.99% availability since general availability launch
- Collaborated with product managers and principal engineers to design an AWS IAM based authN mechanism which unblocked 5+ enterprise customers and the service launch in China; Led a team of 4 to implement the feature
- Designed and built a microservice to bill customers per unique active user per month, globally (7+ AWS regions)
- Awarded the Above & Beyond award at the AWS IoT all-hands for work done on the billing service

Projects & Activites

BAPS Charities • *Regional Youth Activities Volunteer* • *September 2011 - June 2024*
- Founded a UX team to better understand attendee journies and build a more integrated event experience
- Plan, oversee, and speak at regional summer camps and weekly assemblies for 3k+ children with team of 12 members

SadhanaHelper *(Telegram Chatbot)* • *July 2019*
- Ideated and launched an event helper chatbot, for attendees and event coordinators, to improve event experience via features such as personalized schedules, group photo album management, and attendee info look-up
- Served 3k+ users, with 100 RPS at peak, via a Python Flask API hosted on Heroku backed by a MongoDB database
- Built a photo management service by integrating with Google Drive and Photos APIs to manage group level albums

TEDxRutgers • *President* • *Tech Director* • *December 2015 - May 2019*
- Led team of 20 (Design, Marketing, Tech, Finance, Logistics) to host conferences with 1k+ attendees and 10 speakers
- Achieved 90% growth (~500 to ~1k attendees) over two years by soliciting speaker nominations from students

Smart Cities • *Independent Study - Professor Desheng Zhang* • *January 2018 - January 2019*
- Researched the feasibility of real-time sharing of sensor data within heterogeneous vehicular networks
- Analyzed spatio-temporal granularities of human mobility patterns in Shenzhen, China to predict mobility uniqueness

Education

Rutgers University - New Brunswick • *May 2019*
Bachelors of Science in **Computer Science** and **Economics** • GPA: 3.83/4.00

Skills & Interests

Programming: CSS • Go • HTML • Java • Kotlin • Python • SQL • TypeScript
AWS: ALB • API Gateway • CloudFormation • CloudWatch • DynamoDB • EMR • EventBridge • Fargate • Firehose • IAM • IoT Core • KMS • Kinesis • Lambda • Route53 • S3 • SES • SNS • SQS • SSO • Step Functions • Timestream • X-Ray
Tech: T3, Vercel, Supabase, Next.js, Clerk, Tailwind, Sentry, PostHog

Interests: Traveling • Running • Skiing • Pickleball • Cycling • Photography • Bhangra & Bollywood Music