Parth Doshi

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Education

B.S. Computer Science: Machine Intelligence, B.S. Mathematical Statistics — Aug. 2016 – Dec 2019
Purdue University — *West Lafayette, IN*

Experience

Fathom Health — Remote/NYC
Lead Software Engineer — *Jan. 2022 – Present*

- Spearheaded implementation of Fathom's Risk Adjustment coding product to increase ARR by $15M+, a 2.5x increase, which required scaling Fathom's model from 10,000 medical charts daily to 250,000 charts with burst capacity of up to 2M charts.
- Led team of 15 engineers to develop a generative AI solution for the Risk Adjustment product which reduced client onboarding time from months to weeks by removing the need for terabytes of training data and thus reducing technical complexity.
- Architected data transformation system replacing bespoke client-specific integrations with a single reusable pipeline, reducing engineering time per implementation from 2 months to 2 weeks.
- Designed and implemented a common integration for Athena EHR clients using FHIR, further decreasing onboarding time to days instead of weeks, leading to Fathom delivering an initial POC 50% faster for clients.
- Collaborated directly with stakeholders of health systems, altogether containing over 1,000 medical facilities, to understand their specific guidelines, and design novel technical solutions.
- Advocated for and moved the company to using Terraform for infrastructure as code, reducing time by 200% to provision new PHI-safe environments with sane default networking, kubernetes clusters, geographic restrictions, and just-in-time permissioning.

Software Engineer — *Jan. 2020 - Jan. 2022*

- Achieved 10x model training speedup by migrating from GPUs to TPUs, enabling larger model architectures that allowed Fathom to expand beyond Radiology and into the Emergency Department and Primary Care specialties increasing ARR by 3x.
- Mapped diagnoses to procedures by parsing the entire diagnosis (ICD10) index and linking procedures/diagnoses based on the body parts they affect plus a combination of 10 additional heuristics which increased diagnosis coding accuracy by 30%.

Microsoft — Redmond, WA
Software Engineering Intern — *May 2019 – Aug. 2019*

- Automated provisioning and deprovisioning of roles to provide just-in-time access of production Azure resources for on-call engineers, which reduced each team's surface of attack by as much as 70%.

Viptela — San Jose, CA
Software Engineering Intern — *Jun. 2018 – Aug. 2018*

- Co-invented network topology prediction algorithm (US Patent 11,228,500), allowing Viptela to generate optimal network topologies for customers without requiring a network architect.

Other Experience

VolleyAI | *Python, Astro, Svelte, YOLO, OpenCV, GCP (containerized ML inference)* — 2025

- Developed a web app for AI-powered volleyball game analysis using computer vision (CNN) focusing on allowing players or coaches to watch and export individual rallies using a YouTube-style video player.

TEALS Volunteer Instructor | *Microsoft TEALS Program* — 2021 – 2024

- Taught AP Computer Science Principles weekly to high school students in person for 3 years, developing curriculum and leading classroom instruction alongside professional teachers.

Technical Skills

Languages: Python, SQL (BigQuery), Bash, TypeScript, HTML, CSS
Frameworks: Apache Spark/Beam, DBT, Airflow, React, Node.js, Astro/Svelte
ML/AI: LLMs (Gemini, Claude, GPT-4o), RAG, YOLO, Computer Vision, TensorFlow
Infrastructure: GCP, Azure, Kubernetes, Terraform, Docker, Monitoring/Logging, Git/jj