

Ahmed Katary

Sunnyvale, CA 94086 • ahmedk1421@alum.mit.edu • akatary.com • +1 (408) 410-0427

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Bachelor of Science in Computer Science and Engineering

CAMBRIDGE, MA

2019 – 2023

PROFESSIONAL EXPERIENCE

GOOGLE LLC

Software Engineer

CAMBRIDGE, MA

2025 – Present

- Optimized and tuned custom resource forecasts in collaboration with data scientists to onboard a product area onto Flex, Google's compute resource management system; forecasts informed procurement of 2.5 million chips now supporting production workloads, including Google Maps.
- Built a SQL and Java forecasting pipeline processing 100 GiB per run every 4 hours, as part of a four-engineer team responsible for the pipeline and stockout-risk modeling system.

TEALSTONE CONSULTING

Founder | Software Engineer

CAMBRIDGE, MA

2024 – 2025

- Architected scalable backends using NodeJS, Django and GraphQL
 - Aria
 - Developed AI-powered sound management platform using ReactTS, deployed in 50+ stores across the US and Canada
 - NodeJS backend with 2 endpoints: one monitors 4.2MB of live music daily via SYB API and caches Spotify metadata; another recommends songs using mood, energy, and k-means clustering
 - Evolve Academy
 - Created endpoints for managing users, content, and submissions using Django, GraphQL, SQL, Firebase auth, and Celery for scheduled emails.
 - Increased students enrolled by 50%, enabled company to launch after 2 years
- Recruited and managed a team of 2 software engineers, where I prepared technical specifications for core functionalities. Used Trello, later JIRA to assign and check-off tasks.
- Managed 5 full customer lifecycles from acquisition to delivery. Led 20+ client intakes, converting 5. Delivered specs, hi-fi designs, quotes, and live-testing setups.

MIT HCIE LAB

Undergraduate Researcher

CAMBRIDGE, MA

2022 – 2023

- Second author on [Style2Fab: Functionality-Aware Segmentation for Fabricating Personalized 3D Models with Generative AI](#) paper where I was responsible for the technical implementation of the Stylization Nerf using pytorch and the segmentation algorithm, landed \$140,000 grant
- Optimized spectral clustering for mesh segmentation, achieving 6x speedup by converting mesh into a collapsing face graph in $O(n)$ time, enabling ~12s processing for 100K+ surfaces.

INFOSYS

Quantum Machine Learning Intern

NEW YORK, NY

2021– 2022

- Implemented the QuAnvolution layer presented in [Quantum Convolutional Neural Networks](#) using PennyLane to implement a QCNN to classify car plate numbers from surveillance camera footage

SIDE PROJECTS

UNTASK-AI

2026

- Developed a Python task-automation prototype using Celery, Redis, and SQLite to schedule browser-based AI workflows; implemented job discovery with structured response validation and email delivery, without direct model API calls.

PUZZLIFY

2026

- Built a Java/Javalin image-processing service and JavaScript interface that convert uploaded images into printable jigsaw puzzles with configurable rows and columns; implemented custom interlocking-piece geometry and transparency handling.

SPONJ3D**2025**

- Built an AI-powered 3D creation platform using React, TypeScript, Three.js, and Django, combining visual workflow editing with text-to-3D and image-to-3D generation, mesh segmentation, and AI-driven texturing.

OBJECTIVE TRACKER**2025**

- Built a macOS productivity app using Electron, JavaScript, and Alpine.js, with hierarchical tasks, drag-and-drop reordering, automatic progress tracking, and persistent local storage.

RECEIPT SPLITTER**2023**

- Used docttr to extract line items from receipt, built a simple GUI to assign line items to a label and compute total cost / label.

STARDUST: CLASH OF CLANS X MINECRAFT**2022**

- Used MongoDB and Java based Spigot to create a minecraft server with clash of clans features: regenerating destroyed blocks using caching. Sifted through dozens of documentation to figure out how to create custom entities (like the zombies) by altering the decompiled native minecraft build.

MAS WEBSITE**2021**

- Used ReactJS and a simple python server to create a website for the MIT MSA. Has 10K+ monthly visitors and is used to keep the community engaged and informed.

PLOYEM: CS + MATH EDUCATION PORTAL + WEBSITE BUILDER**2020**

- Used Django + ReactJS + SQL to develop an educational platform where I can upload lessons, students can complete timed exams and I can view student performance analytics. Used to teach SAT and CS to over 50 students during Covid.
- Used podman to create sandboxed sessions for users connected to the server. Used ReactJS to create a smaller version of Jupyter Notebook supporting Python, JS, and Java.
- Used Regex and ASTs to create a mini-website drag-n-drop builder that allows users to add custom JS hooks to buttons