# **Aanand Kainth**

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#### **EDUCATION**

## **BSc in Computer Science** @ University of California, Santa Cruz

Oct 2020 - Jun 2023

GPA: 3.93 (Magna Cum Laude), Dean's List, President of UCSC Rocket Team

Relevant Coursework: Applied Machine Learning, Computer Vision, Computer Systems Architecture, Data Structures & Algorithms, Web Applications, Electrical Engineering

## **SKILLS**

Programming Languages: Python, JavaScript (JS), TypeScript (TS), React, Kotlin, Java, Go, HTML

Databases: PostgreSQL, PGVector, MongoDB, Firestore, SQL, NoSQL

**Tools:** AWS, Google Cloud Platform, Docker, Git, Linux/Unix

#### **EXPERIENCE**

## **Software Engineer Intern @ Amazon Web Services (AWS)**

Jun 2023 – Sep 2023

- Prototyped a new service backend to support OpenTelemetry Layer Protocol (OTLP) using Golang and Docker
- Authored an iOS demo using Swift to demonstrate data-plane's support for mobile apps, opening to 217% customers
- Produced a scalable (1k TPS) architecture built upon AWS ECS, ALB, VPC, and IAM

#### Software Engineer Intern @ Plume Design Inc.

Jun 2021 – Sep 2021

- Developed 12+ REST HTTP APIs backed by MongoDB in a distributed Node.js microservice, tested with Sinon
- Standardized Protobuf schemas and endpoints to gRPC to reduce service load and latency

## Fellow, Facebook AI Research (VISSL) @ Major League Hacking

Feb 2021 – Apr 2021

- Identified and fixed long-standing bug, repairing the performance and consistency of 20+ models
- Implemented square-root LR scaling for ~10% faster convergence for parallel workloads
- Revamped event system to pluggable storage, including Tensorboard, HiPlot, and 2 more integrations

#### Fellow, BentoML @ Major League Hacking

Jun 2020 - Sep 2020

- Collaborated with maintainers to refactor the public interface, reducing average size of PRs by ~40%
- Augmented image support with multi-image inputs via multipart/form-data
- Integrated PySpark ML, to support 1k+ users deploying 20+ models quickly and scalably

## Software Engineer Intern @ Plume Design Inc.

Jun 2019 - Sep 2019

- Overhauled front-end data rendering using Chart.js, reducing load times by 0.6s, saving engineers 10 hrs / month
- Migrated an 50k SLOC AngularJS application to Angular 8 over the course of 1 month, and upgraded to ES6
- Developed REST HTTP endpoints to support IPv6 with Loopback, and tested using Sinon

## **ADDITIONAL EXPERIENCE**

# **President @ UCSC Rocket Team**

Oct 2020 - Jun 2023

- Coordinated 26 students to build & launch a \$5,500 rocket, placing 26th in the NASA University Student Launch
- Devised and simulated a real-time flight path prediction algorithm with an accuracy of 10 ft with CircuitPython

#### **PROJECTS**

#### **akainth015/beefystew**: An Al-enforced hashtag-centric social media platform

• Built a full-stack service to filter images categorized under a hashtag with 90% accuracy in under 30 seconds using a fine-tuned computer vision model, Tensorflow, and py4web (Django-like framework)

## **akainth015/concept**: Valuable insights to take control of your writing

• Authored a Google Docs add-on to analyze writing through the Google Natural Language platform and offer 8 metrics and insights about sentiment, monotony, salient entities and more using React

# akainth015/EyeGuard: Take care of your eyes by getting reminders to rest them

- Produced a Windows app to enforce recommendations by optometrists using Windows App SDK and C#
- Grew to 1.3k daily active users within 4 months