PRAJWAL V. ATHREYA

+1(959)-237-0577 | athreya.p@northeastern.edu | https://www.linkedin.com/in/prajwal-v-athreya | Portfolio 🗹 Available for full-time opportunities from May 2025

A graduate student specializing in artificial intelligence, with nearly two and a half years of industry experience. Skilled in **Python, Go, C++, and Java**; actively seeking full-time opportunities as a Software Development Engineer (SDE).

EDUCATION

Northeastern University, Boston, MA Master of Science in Artificial Intelligence Dayanandasagar College Of Engineering, Bangalore, KA Bachelor of Engineering in Automobile Engineering Sep 2023 - May 2025

GPA: 3.9

Aug 2017 - Aug 2021

GPA: 3.7

EXPERIENCE

Software Engineer (Co-op) - Akamai, Cambridge, MA

July 2024 - December 2024

- CAPL (Cluster API Provider Linode)
 - Added E2E tests using **Chainsaw** for multiple flavors of kubernetes clusters; increasing test coverage by almost 20%
 - Implemented Linode Cloud Firewall and Placement groups as a default resource for clusters.
- CSI Driver (Container Storage Interface)
 - Optimized GOMAXPROCS to dynamically scale resource utilization for improved performance during CSI driver operations.
 - Added support for **Block Storage Encryption** of volumes.
 - Integrated **Prometheus** and **Grafana** for visualizing and monitoring **Linode Cloud Volumes** related CSI driver operations.
 - Implemented **OpenTelemetry** to enable tracing of **gRPC** function calls and improve observability and stack tracing.

Software Engineer - UpUgo & Surgg Pvt Ltd, Bangalore, KA

November 2021 - July 2023

- · Workout Recommendation System
 - Engineered a hybrid recommendation system that combines collaborative filtering **and transformer-based embeddings** to enhance accuracy and personalization.
 - Improved recommendation system accuracy using LoRA; which significantly improved retraining time.
 - Containerized the service using **Docker** and deployed it with **Amazon EKS(Elastic Kubernetes Service)** for scalable orchestration and seamless load balancing.
 - Integrated **TensorRT** into containerized inference pipelines, reducing the recommendation generation time from **470 to less** than **200 ms**, enhancing real-time performance.
 - Implemented in-memory caching and CDN-based caching using Cloudflare for APIs resulting in improved retrieval speeds of approximately 30%.

PROJECTS

Adversarial Attacks on Large Language Models 🗹

March 2024

Related Topics: Positional Encoding, Transformers, GPT, Model Fine-tuning, Generative Model, pEFT

- · Fine-tuned GPT-2 to generate adversarial inputs, successfully causing misclassification in 60% of cases.
- · Deployed this generative model with FastAPI as the backend framework to convert the inference module into an API, allowing it to be called upon text for testing adversarial examples.

Image Processing Application \square

October 2023

Related Topics: MVC Architecture, Multi-Threading, Multi-Processing, Object-Oriented Design

- · Built a full-scale image processing application employing MVC architecture in Java.
- Following the said architecture and minor optimizations during pre-processing processing times were **reduced by approximately 70ms**, improving the performance by almost 40%.

SKILLS

Programming Languages

Bash, C++, Java, Node.js, Python, Go

Database

MongoDB, MySQL

DevOps Operating Systems

Docker, EC2, EKS, Elastic Beanstalk, Git, Lambda, S3, Chainsaw

Linux, Windows