AKASH KAMALESH

Bengaluru, India

✉ akash.kamalesh03@gmail.com   💼 Akash Kamalesh   ⏺ asphytheghoul

EDUCATION

PES University   **September 2021 – Present**
*B.Tech Computer Science Engineering, 6th Semester **8.76 / 10.0 GPA.***   *Bengaluru, India*

Relevant Coursework/Skills: Operating Systems, Computer Networks, Data Analytics, Big Data, Machine Intelligence, Natural Language Processing (NLP), Data Structures & Algorithms, Database Management System (DBMS), Software Engineering, Compiler Design, Object Oriented Analysis and Design

Additional Information:
Amazon ML Summer School 2023 Scholar
Top 5% of the batch in first semester

TECHNICAL SKILLS

Languages: Python, C, C++, R, LaTeX, JavaScript, SQL, NoSQL, Bash

Machine Learning: Scikit-learn, TensorFlow, PyTorch, ONNX, PyTorch Geometric, Deep Learning , Natural Language Processing (NLP), Computer Vision, Audio Analysis & Signal Prcoessing, Graph Neural Networks, Time series forecasting, Generative AI, Spark, Hadoop, PySpark, kafka, Stable Diffusion

Developer Tools: Git, VS Code, Nano, AWS Cloud Formation

Technologies/Frameworks: ReactJS, NodeJS, ExpressJS, Django, TailwindCSS, Bootstrap, Mongo, Flask, NEXT.js

EXPERIENCE

Swiggy ↗   **June 2024 – Present**
Data Science Intern   *Bengaluru, India*
- Lead Developer, developing the end-to-end pipeline for a Generative AI based Gifting Assistant for Swiggy Instamart

CellStrat AI ↗   **March 2023 – Feb 2024**
Core Generative AI Research and Product Intern   *Remote*
- **Hosted 3 webinars** on LLMs, GPT, and multimodal models; fine-tuned LLMs for business applications; and consulted for **BondView** ↗ on leveraging LLMs for data insights.

NOKIA   **Oct 2023 – January 2024**
Consultancy Project Intern   *Bengaluru, India*
- Worked on a consultancy project for Nokia on **5G Communication Networks using Deep Learning**. Trained, evaluated, optimized and verified performance by creating a comparative study of various models

PROJECTS

yAKT (Yet another KRAFt) ⬈   **November 2023**
- Contributed to the development of a distributed metadata management system to address the need for a **modern, efficient, and highly scalable metadata management** solution for the Kafka ecosystem.
- Key features of yAKT include **Robust Metadata Store, Event-Driven architecture and log replication**, Simplified HTTP Server CRD API.
- yAKT was designed to work with pyraft in mind to replace Zookeeper and enhance the reliability and scalability of Kafka's metadata management.

Kronos ⬈   **October 2023**
- Developed a stock visualization dashboard for **7000+** companies using Plotly Dash featuring candlestick charts for daily prices of stocks, summary statistics.
- Collaborated on the design of a time-series database to effectively store and retrieve around 42 million records.
- Collaborated on the indexing and partitioning techniques in a time-series database achieving around **600 times faster** reads and aggregation performance compared to a standard PostgreSQL database.

Baraat ⬈   **January 2024**
- Lead a project and contributed substantially to the design and advancement of Project Baraat– an **innovative Cross-Lingual Mixture of Experts Model built upon LLaMa-2**, facilitating seamless interactions in Hindi, English, and Kannada.
- **Designed and developed dataset creation pipelines** tailored for diverse fine-tuning tasks across Kannada and Hindi languages, fostering more robust and effective training processes.
- Implemented the creation of **mixture of experts through a gradient-free method**, ensuring streamlined and scalable model training processes, and validated the end result as a robust proof of concept.

INVOLVEMENT

Meta AI
- Was **one out of 3 students in the country** who was invited by Meta AI to attend the Meta AI Technical Summit 2023-24 at Bangalore.
- Engaged with leading AI developers, gaining insights into diverse endeavors within generative AI.

IEEE Computer Society PES University - Student Chair
- Oversaw student activities, organized multiple events including a talk by the **co-author of the PyTorch research paper**, Sasank Chilamkurthy.
- Organized technical workshops and an Open Source Project Initiative within IEEE Computer Society at PES University.
- Coordinating and hosting the **3rd International Conference on Data, Decision and Systems (ICDDS'24)** at PES University

Google Developer Student Clubs PES University - AI/ML Student Lead
- Led AI/ML initiatives, organized workshops, and supported projects and learning within Google Developer Student Clubs at PES University.

ACHIEVEMENTS

RVCE AI Hackathon (March 2023)
Secured Runner-Up Position.

IEEE Computer Society (October 2022)
Secured Second Runner-Up Position.

Hasgeek Open Source AI Hackathon (January 2024 - April 2024)
Winners of the National Level Open Source AI Hackathon (Winter Edition) hosted by Hasgeek, sponsored by Microsoft and Meta.