Ashish Kulkarni

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Education

PES University 2020 – 2024

Bachelor of Technology in Computer Science and Engineering (CGPA: 8.03 / 10) *Bengaluru, Karnataka, India*

- **Relevant Coursework:** Data Structures and Algorithms (C++, Java, Python), Object Oriented Programming (Java), DBMS (MySQL, PostgreSQL), Graph Theory (Graph Neural Networks, Neo4j), AR/VR (Blender, GLUT, Unity), Deep Learning (PyTorch, TensorFlow)
- **Awards:** 3x Distinction Award Recipient

Experience

Nasdaq Aug 2024 – Present

Software Developer *Bengaluru, Karnataka, India*

- Played a key role in a small team jump-starting a new machine intelligence product, an Investor Relations Advisory product under Capital Access Platforms, involving **named entity recognition**, **web scraping**, **AWS**, and RDBMS (**SQL Server** and **PostgreSQL**).
- Made several improvements to **fuzzy matching** and added **GenAI summarization**, and took the project to production.
- Designed a **PostgreSQL schema** for backend processes, and re-architected the web scraping solution.
- Worked on **Terraform** for AWS resource provisioning: step functions, batch jobs, lambdas, etc.
- **Mentored at an ML bootcamp** for 30+ employees at Nasdaq Bengaluru (2nd week Feb – present).

Nasdaq Jun 2023 – Jul 2024

Software Development Intern *Bengaluru, Karnataka, India*

- Jump-started the new Advisory product as the primary **Python** developer, and took the project to prototype phase.
- **Global finalist** of the 2023 intra-company hackathon by leveraging **LLMs** for **Terraform** script generation.

StanceBeam Jun 2022 – Aug 2022

Computer Vision Intern *Bengaluru, Karnataka, India*

- Implemented the usage of stereo vision to compute the 3D coordinates of a subject, to be used in a future decision review system for cricket.
- **Geometric Techniques**: Epipolar Geometry, Trigonometry
- **Technologies**: OpenCV, NumPy, Python3

PES University Jan 2024 – Apr 2024

Teaching Assistant *Bengaluru, Karnataka, India*

- Teaching assistant for the 6th-semester course Object-Oriented Analysis and Design with Java (UE21CS352B), under Prof. Priya Badrinath, for 180+ students.

Projects

OpenGL Projects | *C++, GLUT*

- My work ranges from basic 2-d projects, such as generating the Sierpinski triangle fractal using the chaos method, visualizing Graham's scan algorithm, all the way up to implementing elastic sphere collisions in 3-d space.

covibot | *Python, PRAW*

- A Reddit bot which gives COVID-19 stats of a specific region without an explicit call, using low-level NLP, and accessing government datasets.

Glaucoma Diagnosis from Retinal Fundus Images | *Python, TensorFlow, scikit-learn*

- Using CNNs to classify an image into normal or glaucomatous, using retinal fundus images by transfer learning.

Graph-based Recommender | *Python, NetworkX, DGL (Deep Graph Library), PyTorch*

- A recommender system using link prediction algorithms and GCN (graph convolutional networks).

Technical Skills

Languages: Python, C++, Java, C
Concepts: Operating System, Artificial Intelligence, Machine Learning, Neural Networks, Database, Agile Methodology, Cloud Computing, Generative AI, Large Language Models, Computer Vision, Data Science, Computer Networks
Certifications: AWS Educate Introduction to Cloud 101, *Amazon Web Services*; Quantum Computing Using Qiskit, *PESU I/O*; LFD103, *The Linux Foundation*