Mukesh Kumar

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Education

Amrita Vishwa Vidyapeetham **Sep. 2020 – Present**
Bachelor of Technology in Computer Science *Chennai, India*
CGPA: 9.36/10

Experience

J.P. Morgan Chase & Co. **Jun. 2023 – July 2023**
Software Engineer Intern *Bengaluru, India*

- Developed a cost-tracking application on AWS cloud, utilizing AWS services like Lambda, CloudTrail, and CostExplorer API, to provide granular cost breakdowns for diverse job runs, including ML workloads and credit risk analysis models.
- Achieved a substantial cost reduction of up to 7% by identifying and eliminating unnecessary expenses through application insights.
- Conducted extensive testing and integration with existing EMR job runs, ensuring seamless functionality.
- Orchestrated infrastructure provisioning and management using Terraform, streamlining resource allocation and management processes.

Hotnot Inc **Dec. 2022 – Jan. 2023**
Software Engineer Intern *Remote*

- Led final development phase and collaborated with the client to resolve critical issues, implement last-minute features, ensuring successful product launch.
- Utilized Django and Django Rest Framework to implement a robust algorithm for matching creators with users based on preferences, increasing click-through rates by not less than 5% and enhancing user engagement.
- Introduced OTP-based login for authentication and integrated it seamlessly with Firebase, improving account security and user experience.
- Successfully deployed the Django application on Azure, ensuring seamless accessibility and performance for end-users.

Projects

Drug Adverse Effects Prediction | *ReactJS, FastAPI, AWS, Docker, TensorFlow*

- Developed an app that utilizes a multi-class classification model to predict adverse side effects of prescribed drugs by analyzing patients' medical history.
- Utilized AWS Medical Comprehend and Amazon Textract to extract crucial health data from prescriptions.
- Achieved an accuracy rate of 93.7% in predicting drug effects, improving patient safety and minimizing health risks.

Personality Prediction from Tweets | *Flask, PyTorch, NLTK, Tailwind*

- Designed a personality prediction application that utilizes sentiment analysis-based machine learning model to assign MBTI-based personality traits to users based on their tweets.
- Attained an F1 score of 96.7% and mitigated class imbalance effectively through data augmentation techniques, resulting in superior model performance compared to baseline models.

Technical Skills

Languages: Python, Java, C, C++, JavaScript, R, Scala
Technologies/Frameworks: AWS, ReactJS, Node.js, Flask, Django, Docker, Kubernetes, FastAPI, TensorFlow, PyTorch

Certifications

- AWS Certified Cloud Practitioner | Amazon Web Services
- AWS Certified Machine Learning - Specialty | Amazon Web Services

Leadership and Achievements

- Vice President at Cognizance, a technical club, overseeing a team of over 50 students, providing mentorship, and successfully organizing multiple events and hackathons, resulting in a 15% boost in event participation and winnings.
- Startup team member at ZeroMagic, a low-code backend services startup, actively contributing to code development. Played a key role in devising and executing the startup's strategic roadmap and defining our unique value proposition.
- Winner of DataDev Spring 2023 Hackathon organized by Tableau, Salesforce Inc. Project: DataConnect
- Winner of DeveloperWeek 2023 in the Oracle Sponsored challenge. Project: DevCraftsman

Publications

- Variational Autoencoder—General Adversarial Networks (VAE-GAN)-Based Model for Ligand Designing. Lecture Notes in Networks and Systems, vol. 473, chapter 64. Springer Link
- Metabolic Pathway Class Prediction Using Graph Convolutional Network (GCN). Lecture Notes in Networks and Systems, vol. 689, chapter 43. Springer Link