

Anuraag Velamati

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Education

University of California, Davis

Davis, USA

Master of Science in Computer Science; CGPA: 3.85

Sept 2022 - Present

- Coursework: Machine Learning, Distributed Database Systems, Software Engineering, Computer and Information Security

Vellore Institute of Technology, Vellore

Vellore, India

Bachelor of Technology - Computer Science; CGPA: 9.23

July 2018 - July 2022

- Coursework: Artificial intelligence, Database Management Systems, Data Visualization, Statistics, Data Structures and Algorithms, web mining

Work Experience

University of California, Davis

Davis, USA

Graduate Student Researcher

June 2023 - Present

- Conducted research on seizure network dynamics in epilepsy patients undergoing intracranial monitoring.
- Optimized custom scripts for data preprocessing and analysis techniques to uncover intricate patterns in seizure network dynamics, thereby improving the execution speed by 23%.
- Collaborated with renowned neurologists, neurosurgeons, and data scientists to integrate clinical expertise, resulting in a diagnostic tool that reduced misdiagnosis rates by 40% and improved outcomes.

Innomatics Research labs

Hyderabad, India

Machine Learning Engineer Intern

April 2021 - June 2021

- Performed Exploratory Data Analysis and built a predictive model, analyzing customer food preferences, reducing food wastage by 30%.
- Engineered a food recommendation system, providing meaningful recommendations to the guest, reducing food ordering time by 14%.
- Applied multiple machine learning techniques to build better pricing models, increasing the revenue by 19%.

Vsualthree60

Bengaluru, India

Backend Engineer Intern

February 2021 - March 2021

- Strategically engineered a proprietary algorithm for facial data analysis, yielding 83% in model efficiency.
- Automated a pipeline using apache airflow, to store and feed the data being generated to the model, improving code reusability by 15%.
- Automated server-side solutions with CI/CD to enhance platform stability and scalability, improving customer experience metrics by 20%.

ACL Digital

Hyderabad, India

Software Engineer Intern

April 2020 - July 2020

- Designed and implemented a database schema that improved data retrieval speed by 25%.
- Implemented an automated data validation process, reducing errors by 40%.
- Successfully established a web services and microservices architecture using REST APIs for third-party integrations.

Projects

High-Resolution image inpainting using GANs

Technologies: Python, Flask, Node.js, React.js, AWS(EC2, S3, Lambda function, Sagemaker), Tensorflow, Docker, Javascript, HTML/CSS.

- Enhanced the generator and discriminator network to improve the contextual reasoning and texture synthesis of the images.
- Developed a unique optimization function by combining various loss functions, increasing the performance by 15%.
- Leveraged Amazon EC2 instances for model deployment and Flask API for accessibility purposes.

Click through rate prediction using machine learning

Technologies: Python(Scikit learn, Scipy, Matplotlib), Jupyter notebook, Tableau.

- Performed Exploratory Data Analysis and statistical testing to discover trends and patterns in the data.
- Created a dashboard, visualising the trends and patterns observed in the data.
- Created an ensemble model using logistic regression, decision trees, random forest and XGBoost algorithms, attaining an accuracy of 82%.

Skills

Languages Python, Java, SQL, Javascript, Typescript, C++, MySQL, PostgreSQL

Tools Docker, Github, Tableau, Jupyter Notebook, Jira, Jenkins, Apache airflow, MySQL workbench, Azure Machine Learning

Frameworks MERN stack(Mongo DB, Express.js, React.js, Node.js), Tensorflow, Flask, Django

Database Design & Administration, Cloud Computing & Infrastructure Design, Database Performance Optimization & Monitoring,

Concepts Automation & Scripting, Agile Methodologies & Cross-Team Collaboration, RESTful API development & maintenance, version control