Anuraag Velamati

+1 669 649 9323 | Anuraag.Velamati@gmail.com | anuraag.vercel.app | github.com/Anuraag287 | linkedin.com/in/anuraagvelamati287/

Education

University of California, Davis — *Davis, USA*

Master of Science in Computer Science; CGPA: 3.85 — *Sept 2022 - May 2024*

- 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

Technical Skills

Languages	Python, MATLAB, Java, SQL, MySQL, PostgreSQL, NoSQL, Javascript, C, C++
Dev Tools	Docker, Github, Tableau, Jupyter Notebook, Jira, Jenkins, Apache airflow, MySQL workbench, Azure Machine Learning
Frameworks	AWS Sagemaker, PyTorch, xgboost, Tensorflow, Flask, Django, Keras, Spark, Spring, PySpark, GCP Vertex AI, MLflow, Terraform
Concepts	Database Design & Administration, Cloud Computing & Infrastructure Design, Automation & Scripting, Agile Methodologies & Cross-Team Collaboration, Pipelines, Model Registry, Model Serving, Monitoring, Data version control

Work Experience

University of California, Davis — *Davis, USA*

Graduate Student Researcher - Department of Neuroengineering — *June 2023 - Present*

- Conducted research on seizure network dynamics in epilepsy patients undergoing intracranial monitoring.
- Optimized custom scripts for **data processing 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 service 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% .