

KUMUD ARORA

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Education

University of Texas at Dallas

Bachelor of Science in Computer Science, Minor in Business Administration

August 2023 – May 2027

Richardson, TX

Cornell University

Online certificate in Machine Learning Foundations, focusing on NLP, Deep Learning, Computer Vision and LLMs

August 2025

Experience

Marsh McLennan

May 2025 – Present

AI/ML Studio Fellow

- Developing predictive models to quantify the impact of social inflation on claim costs and forecast future industry trends, supporting data-driven risk management strategies.
- Using machine learning techniques to identify signals of social inflation and applying regression to analyze insurance claim severity trends and macroeconomic variables.

US Government Accountability Office

Feb 2025 – April 2025

Management and Technical Program Analyst Intern

Dallas, TX

- Developed data-driven insights by performing quantitative analysis on fiscal health, tax policy, and federal workforce planning, leveraging Python and data visualization tools to identify trends and inform congressional recommendations.
- Built and optimized 10+ reports and presentations for policymakers, integrating automation techniques to enhance transparency on high-risk government programs, exposing inefficiencies in waste, fraud, and management through structured data analysis.
- Contributed to software solutions using Python and JavaScript, cutting manual data entry by 60%, supporting data processing, dashboard development, and workflow automation to enhance decision-making for government initiatives.

Technical Skills

Languages: Python, Java, C++, HTML/CSS, JavaScript

Tools/Frameworks: GitHub, Figma, Agile/Scrum, Pandas, NumPy, Matplotlib, Seaborn

Relevant Coursework: Data Structures and Algorithms Analysis, Advanced Algorithm Design and Analysis, Database Systems, Object Oriented Programming in Java, Software Engineering, Discrete Mathematics, Project Management, Information Technology for Business

Projects

The Market(place) at UTD | HTML, JavaScript, Java

January 2024

- Developed a full-stack e-commerce platform for a small-scale of UT Dallas students, implementing secure user authentication, interactive listings, and a campus-based meet-up system with an integrated map.
- Designed a dynamic front-end with a forum-style homepage and multi-channel contact system (Discord, Instagram, email, phone) to enhance user engagement and streamline communication.
- Built a scalable backend with a CRUD API and database management system, optimizing performance for listing creation, updates, and removals.

Car-Analyst | Python

August 2024

- Performed data preprocessing and statistical analysis on 50,000+ rows of an eBay car sales dataset using Python, handling 20+ features and addressing missing values, normalizing data, and identifying trends in car models, pricing, and geographical sales distribution. Utilized libraries such as Pandas and NumPy to extract meaningful insights.
- Generated an interactive data report with visualizations using Matplotlib and Seaborn, integrating statistical findings into an Excel report with dynamic graphs and tables.

Extracurricular

IEEE

August 2024 – May 2025

Member - Computational Intelligence Society

University of Texas at Dallas

- Developed and deployed a deep learning model in Python to classify 10,000+ images, distinguishing dogs from foreign objects and identifying breeds using CNN architectures like ResNet, VGG, and AlexNet.
- Optimized model performance by evaluating accuracy, computational efficiency, and generalization on both standard datasets and real-world images, fine-tuning hyperparameters for improved results, achieving 92% accuracy
- Enhanced team productivity by implementing Agile/Scrum methodologies, streamlining sprint planning, and optimizing task management for faster development cycles.