MANAV ARORA

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EDUCATION

Master of Science in Data Science and Analytics   **Aug 2024 - May 2026**

Georgetown University, Washington, D.C.

- 4.0/4.0 GPA, Teaching Assistant for Network Analytics, Computer Vision and GenImage Modelling, Machine Learning Foundations, Predictive Analytics, Programming I, Business Analytics Capstone
- Recipient of Data Science and Analytics Returning Student Scholarship
- Relevant Courses: Deep Learning, Neural Networks, Probabilistic Modelling, Data Visualisation, Computational Linguistics, Big Data, Reinforcement Learning, GenerativeAI App Development, ML App Deployment

Bachelor of Engineering in Computer Science with Honours (Distinction)   **Aug 2018 - May 2022**

Nanyang Technological University, Singapore

- 4.45/5 GPA, Specialisations in Data Science and Artificial Intelligence, Vice President NTU Debating Society
- Recipient of URECA Research Award
- Relevant Courses: Neural Networks and Deep Learning, Data Analytics and Mining, Machine Learning, NLP, Artificial Intelligence, Algorithms, Software Engineering, Information Retrieval, Data Structures, and Databases

WORK EXPERIENCE

Associate (Data Scientist)   **July 2022 - July 2024**

PricewaterhouseCoopers Risk Services

- Automated extraction and developed models for fraud detection in grant management systems, reducing review time by 50%.
- Built an NLP regulatory analytics pipeline to process financial documents, improving compliance monitoring efficiency
- Designed technology risk management frameworks (robotics, cloud, data and artificial intelligence) to identify vulnerabilities, align cross-functional stakeholders, and implement mitigation strategies.
- Led client engagement sprints to plan and execute AI-driven digital transformation across Technology Strategy projects

Artificial Intelligence Research Intern   **May 2021 - January 2022**

Envision Digital International

- Developed models (LSTM, CNN, TadGAN) to optimise solar asset performance and deliver predictive maintenance insights
- Deployed production pipelines for IV-curve classification, PV cell shading detection, and irradiance anomaly detection
- Co-authored the "Automatic IV Curve Diagnosis with Deep Learning" paper published at the 48th IEEE PVSC Conference

Applied Artificial Intelligence Engineering Intern   **Aug 2020 - Dec 2020**

Seagate Technology Pte Ltd

- Evaluated AI workload characteristics and scalability for high-entropy computational storage applications
- Architected a distributed edge computing framework using Docker, MXnet, and Ray for video multistream pipelines
- Engineered a parallel processing pipeline, achieving 262% performance improvement over the baseline implementation

Business Data Analytics Intern   **May 2020 – Jul 2020**

Pumas Automation & Robotics

- Built a proprietary Industrial IoT analytics platform targeting SME factories across the ASEAN region
- Designed Python web applications and interactive dashboards to visualise operational KPIs and production metrics
- Evaluated multiple analytics frameworks to integrate data-driven insights into industrial automation solutions

SKILLS

Languages and ML Tools: Python (Tensorflow, PyTorch, Scikit, Keras, HuggingFace, OpenCV, Ray, RLib), R, Quarto, SQL, Java, C, C++, HTML, Git, XML, Matlab, JIRA, Confluence, PowerApps, Linux, VSCode, RStudio, Docker, Kubernetes, DevOps, CSS

Big Data and Cloud: BigQuery, Azure, Redshift, AWS (EC2, S3, Lambda, Glue, Athena), Polars, DuckDB, Hadoop, Spark, FastAPI

Machine Learning and Data Science Techniques: Supervised/unsupervised learning, deep learning (CNNs, RNNs, transformers), NLP, computer vision, time series forecasting, reinforcement learning, Hypothesis testing, A/B testing, Bayesian inference

Online Certifications: Deep Learning Specialisation (NN, CNN, Sequential Models, Hyperparameter Tuning)

ADDITIONAL INFORMATION

Publications: 1. 2

Projects: Big Data Cloud Computing Analysis of AI Anxiety in Reddit Data project, + link 1, 2, 3