

EDUCATION

National University of Singapore	Jan 2022 – Jan 2024
Masters in Computing, Artificial Intelligence specialization (Dissertation Track)	Singapore
SRM Institute of Science and Technology	Aug 2015 – May 2019
Bachelor of Technology in Computer Science and Engineering	Chennai, India

WORK EXPERIENCE

Research Engineer – Data Science	May 2024 – Present
Nanyang Technological University	Singapore
<ul style="list-style-type: none">Led the computational analysis for the ‘Information and Perception Analysis in Online Groups’ project, created an LLM-based discourse strategy detection, author classification, and network analysis.Developed a machine learning framework using user roles, topics, and sentiment trends with 90.91% accuracy in predicting sentiment shifts.Managed the team of 4 research engineers and coordinated the climate change misinformation analysis on social media, developing a LLM based AI web scraper to detect and analyze false narratives.	
Research Assistant	Jul 2022 – Nov 2023
NUS Human Computer Interaction Lab	Singapore
<ul style="list-style-type: none">Devised an advanced eye gaze recognition model using graph neural networks and progressive optimization technique, achieving 98% precision.Optimized data processing on a 10-gesture dataset, demonstrating 97.67% accuracy on unseen data over existing models like ANN, CNN, GRU, and LSTM.	
Software Engineer, Research and Development	Jan 2019 – Oct 2021
Hewlett-Packard Enterprise	Bengaluru, India
<ul style="list-style-type: none">Drove the development of HPE’s proprietary Storage Solution (SEMC), in 6 Support Program Releases and drastically reducing post-release bug reports by 34%.Actively collaborated with cross-functional teams to enhance system robustness and UX by using React/Node.js to engineer reusable UI components.Partnered with Japanese teams to implement localization for international customers, also leveraged Agile methodologies and CI/CD with GitHub and Jenkins, and version controlling using Jira.	

RESEARCH AND PROJECT EXPERIENCE

Research Papers:	
1. Modelling Sentiment Shifts in Online Communities: Integrating User Behaviors and Discussion Topics	<ul style="list-style-type: none">Developed a machine learning framework to predict sentiment shifts, achieving 90.91% accuracy by integrating user behaviors and topics to manage misinformation and improve crisis communication.
2. Shaping Sentiments: The Role of User Behavior and Discussion Topics in Online Communities During Crises	<ul style="list-style-type: none">Analyzed user roles and topics’ impact on sentiment dynamics in Telegram groups during crises, using topic modeling and sentiment analysis for crisis management and community moderation.

Thesis:	
1. Eye-gaze Pattern Recognition [Master’s Thesis]: Neural Network (ANN, CNN, GRU, LSTM, GCN)	
2. Face Spoofing Detection [Thesis]: SVM, Feature Engineering	
<ul style="list-style-type: none">Published research paper in the International Journal of Engineering and Advanced Technology, 2019.	

Generative AI Projects:			
• Conversational Q&A Chatbot	• Chat with Multiple PDFs	• Text to SQL LLM App with SQL Database Querying	• YouTube Video Transcribe Summarizer & Blog Creator
• Multi-Language Invoice Extractor	• Document Q&A (Groq API, Gemini pro)	• Resume ATS Tracking	• News Reporter AI Agent

TECHNICAL SKILLS

Certifications:	Microsoft Azure Fundamentals & Azure AI, Data Science and Artificial Intelligence (ACM)
Languages:	Python, SQL, PyTorch, TensorFlow, Keras, PySpark, Hadoop
Libraries:	Pandas, NumPy, Scikit-Learn, NLTK, Spacy, Seaborn, Plotly, Streamlit, Selenium, Huggingface, LangChain
DevOps & MLOps:	MLFLOW, DVC, Dagshub, AWS EC2, AWS Sagemaker, Docker, AIRFLOW ETL Pipeline, Git, Jenkins, Jira, Grafana