Vardhan Lohia

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EDUCATION

Nanyang Technological University
Singapore

- Bachelor of Engineering in Computer Science — Aug 2021 – May 2025
  - NTU Science and Engineering Merit Scholarship
  - Major CGPA: 4.65/5.0
  - Accelerated Bachelor's Program (Option to graduate in Dec 2024)
  - President Research Scholar
  - Relevant Coursework: AI, Computer Security, Software Engineering, Data Science, Advanced Statistics, Business Finance

Chartered Financial Analyst (CFA)
Singapore

- CFA Level 1 — Nov 2023

IGCSE Advanced Level (A Level)
Singapore

- DPS International School: Mathematics, Physics, Chemistry, Biology (All 4 A*s) — Nov 2020

PROFESSIONAL EXPERIENCE

Singapore Airlines
Singapore

- *Information Technology Security Specialist Intern* — Jul 2023 – Dec 2023
  - Leveraged advanced modelling techniques to quantify the financial implications of security vulnerabilities, contributing to more informed decision-making at the intersection of IT security and finance.
  - Establish and lead collaboration with cross-functional teams to implement cybersecurity protocols and manage security breaches, including handling of response and resolution.
  - Enhancing cyber defence by designing simulated cyber-incidents and undertake proactive measures for identification, analysis, and containment of threats.
  - Demonstrated strong analytical skills by creating a comprehensive reporting mechanism on cyber threats which provides insights and decision useful information resulting in reducing the internal-activated breaches by over 47%.

Panasonic
Singapore

- *Advanced AI Algorithm Developer Intern* — May 2023 – Jul 2023
  - Utilized quantitative skills to identify defects in video matting and implemented anomaly detection algorithms, resulting in a 25% reduction in defects.
  - Leveraged expertise in deep learning and AI by implementing the PPNET model using PyTorch with features that infers alpha and foreground data of 14,000 entities simultaneously and significantly improving the video matting model by 82%.
  - Designed and implemented innovative technique such as segmentation decoder, new loss algorithm, which enhanced the performance of model by 48% and provided higher reliability, seamless execution, and visually enriched output.

Nanyang Technological University
Singapore

- *Undergraduate Researcher* — Aug 2022 – May 2023
  - Applied advanced C++ programming skills to parameterize simulations, enabling the exploration of diverse self-propelling molecules and facilitating the study of intra-particular interactions, contributing to the development of real-life solutions.
  - Implemented refined simulation methods backed by comprehensive literature reviews on innovative active particle simulation techniques. This compressed the project timelines by 120-man days.

LEADERSHIP

- **Treasurer for NTU Blockchain Club -** Demonstrated expertise in managing the operations of blockchain initiative.
- **Football Captain for NTU Hall (Saraca Hall) -** Created and led football team in flagship inter-hall competitions, with over 200 players throughout resident halls and disciplines.
- **Chief Group Leader for Orientation Program NTU -** Conducted and supervised campus-wide workshops and ice-breaking sessions for freshman undergraduates joining into Computer Science course with over 500 participants.

PROJECTS

- **E-Commerce Project**– Cross Platform Web Application to compare prices of similar items across e-commerce stores.
- **Bond Valuation** – Bond valuation script with convexity and sentiment analysis to identify mispriced bonds in the markets.
- **Data Analytics Project** – Attrition by leading prediction/prevention on Wine Quality employee dataset leveraging Tensorflow and other ensemble tree models, decreased attrition rate by 18% based on factors considered.

SKILLS & CERTIFICATION

- **Languages:** English, Hindi, French (Level 1), German (Level 1)
- **Technical:** Python, C, C++, Java, SQL, JavaScript, Ruby, Bash, Linux, Git, HTML, CSS, React, Ruby, Excel, PowerPoint
- **Certificates & Achievements:** Goldman Sachs Engineering Virtual Program, JP Morgan Chase Software Engineering Virtual Experience, AWS Specialization, Applied Social Network Analysis in Python, Python Data Structures