Anselm Long

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SUMMARY

Proactive Computer Science student specialising in machine learning and artificial intelligence. Delivered anomaly detection models that identify malicious web certificates with a 96% accuracy (F1-score 0.994) at IMDA. Seeking to apply technical expertise and an empathetic mindset to build efficient solutions with positive social impact.

SKILLS

Languages: Python, Java, JavaScript, C, C++, HTML/CSS, Go, LaTeX
Frameworks/Libraries: Git, React, JavaFX, Node.js, PostgreSQL, Render, scikit-learn, Numpy, Pandas

EXPERIENCE

Machine Learning Intern, IMDA *May 2025 – Aug 2025*

- Designed and implemented a modular machine-learning pipeline for data parsing, feature engineering, model training and explainability, enabling rapid experimentation.
- Optimised models (Isolation Forest, One-Class SVM, Half Space Trees, Random Forest, Graph Convolution Networks and Large Language Model embeddings) to classify malicious SSL/TLS certificates, achieving a 0.994 F1-score.
- Applied explainable AI (LIME) to surface influential features in anomaly classification, improving interpretability and stakeholder trust.

Strategic Digital Projects Intern, IMDA *May 2024 – Jul 2024*

- Curated technical content in collaboration with Microsoft and AWS to showcase emerging technology use cases in industry-facing workshops, resulting in 25% of attendees initiating GenAI projects with real-world impact.
- Proposed and led a data consolidation initiative leveraging Salesforce to streamline cluster management and cross-team decision-making, reducing time spent locating data by 35%

Freelance Photographer, Self-Employed *Oct 2019 – Present*

- Managed end-to-end client relationships and vendor partnerships, increasing monthly revenue by 300% over 6 years.
- Delivered high-quality digital photography and videography services that improved client retention and referrals.

EDUCATION

National University of Singapore (BSc in Computer Science) *Aug 2023 – Apr 2027*

- **GPA:** 4.69 / 5.00. **Specialized Tracks:** Artificial Intelligence
- **Relevant Coursework:** Artificial Intelligence and Machine Learning, Software Engineering, Object Oriented Programming, Data Structures and Algorithms, Statistics and Probability

PROJECTS

VBook, Team Lead, NUS *Sep 2024 – Nov 2024*

- Led a team of 4 to develop a JavaFX-based CLI contact manager optimised for developers.
- Delivered a functional tool on schedule by overseeing design and implementation milestones.

MiccDrop, Team Lead, Hack & Roll, NUS *Sep 2024 – Nov 2024*

- Developed a humorous karaoke app that rewards off-key singing using React Native, Node.js, and Supabase.
- Implemented real-time pitch detection and karaoke-style lyrics using the Spotify API.

NUSphere, Co-Developer, NUS Orbital *May 2024 – Aug 2024*

- Developed a comprehensive web application using React.js, Go, Git, PostgreSQL, and Firebase for event management.
- Built user authentication system with integrated Google Login, serving as centralized platform for campus-wide event discovery.

36 Engineers, Team Lead, Tech4Good *Apr 2022 – Dec 2022*

- Led a team of 4 to design and prototype an innovative sliding wheelchair solution integrating transfer board and foldable armrest mechanisms to help patients with limited mobility.
- Conducted user research with healthcare community partners to identify pain points for Motor Neuron Disease patients, leading to innovative transfer mechanism design.