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SUMMARY

Highly versatile Computer Science undergraduate (graduating Jan 2026) with experience in full-stack development (Python, C#, TypeScript) and cloud technologies (AWS, Terraform, CI/CD). Proven track record in building scalable microservices, including collaborating with Team AidMi to secure first place at the NUS Social Impact Catalyst Pitch Day for a pre-consultation platform.

WORK EXPERIENCE

Intellectual Property Office of Singapore (IPOS)

May 2025 - Aug 2025

API Engineering Intern

- Implemented an automated system using AI prompt engineering with web search tools in Python, increasing operational efficiency for IPOS Officers.
- Deployed an event-driven architecture using Terraform to manage AWS resources such as Lambda and SQS, ensuring consistent, scalable, and secure deployments.
- Automated system deployment using GitLab CI/CD pipelines and templates from SHIP-HATS, ensuring compliance with industry pipeline security practices.

Micron Semiconductor Asia Operations Pte Ltd

Jun 2024 - Dec 2024

Software Engineering Intern

- Developed a scalable C# .NET microservice as an adaptor layer to enable event-driven communication among existing HTTP applications, reducing migration effort for legacy applications transitioning to Solace messaging.
- Designed microservice architecture following hexagonal architecture principles, ensuring clean separation of concerns and maintainable code structure.
- Optimised microservice performance by implementing safe, concurrent task execution, improving throughput under high load.
- Built user interfaces using Micron's internal enterprise UI framework with Angular and TypeScript for authentication and compliance, improving production visibility and operator workflows.
- Automated CI/CD pipelines in Azure DevOps with Docker containerisation, facilitating efficient builds and deployments to Red Hat OpenShift.

PROJECTS

NTU Final Year Project: Building Deepfake Detection Techniques

Jan 2025 - Oct 2025

- Conducted a comparative machine learning study of three frequency-domain feature extraction techniques (FFT, DCT, DWT) for deepfake detection using a consistent ResNet-18 backbone.
- Demonstrated that the Discrete Wavelet Transform (DWT) produced the most discriminative spectral features, confirming its superiority in capturing localized, multi-scale high-frequency artifacts over global transforms (FFT/DCT).
- Achieved 0.87 AUC and 0.83 F1-score on the real-world WildDeepfake dataset by developing a hybrid RGB + DWT detector.

AidMi: Pre-Consultation Platform for Psychiatric Care

Aug 2024 - Oct 2024

- Collaborated with Team AidMi to develop a full-stack pre-consultation prototype for psychiatric care using React and Supabase, which secured first place at the NUS Social Impact Catalyst Pitch Day and attracting investor interest.
- Built and integrated a chatbot with an AI Engineer for patient data collection, ensuring seamless data flow to support psychiatric assessment workflows.

EDUCATION

Nanyang Technological University, Singapore

Aug 2022 - Jan 2026

Bachelor of Computing (Computer Science)

- SCSE IT Sub-Committee Member, SCSE TOP Orientation Group Leader

Singapore Polytechnic, Singapore

Apr 2019 - Mar 2022

Diploma in Information Technology

- Software Development Specialisation, GPA 3.739
- Certificate in Academic Achievement (2019), Certificate in IoT (2022)

SKILLS

- **Languages:** Python, JavaScript, TypeScript, C#, Java
- **Backend & Database:** Node.js, .NET, RESTful APIs, SQL, Supabase, DynamoDB, MongoDB
- **Frontend Development:** React, Angular, HTML, CSS, React Native
- **Cloud:** Terraform, Docker, Amazon Web Services (AWS), Azure DevOps, GitLab CI/CD