

SUMMARY

Results-oriented Software Engineer with a strong foundation in **distributed systems**, **full-stack** development, and **automation**. Proven track record in designing scalable **microservices** architecture and optimizing **data retrieval latency**. Adept at collaborating in **agile** environments to deliver **high-quality, secure** code. Passionate about using cloud technologies and robust testing methodologies to solve complex business problems.

EDUCATION

Nanyang Technological University | Singapore
Bachelor's in mathematical and computer science
CGPA: 4.44/5.0

Expect in July 2026

TECHNICAL SKILLS

Languages: Python, Java, C#, JS, SQL.

Web & Frameworks: ReactJS, .NET Core, gRPC, REST APIs, FastAPI, Flask

Infrastructure & Tools: Microsoft Azure, AWS, Docker, Git, Linux, Redis, MySQL

Engineering Practices: CI/CD, Automated Testing (XUnit), Microservices, Agile/Scrum, Defensive Coding

WORK EXPERIENCES & INTERSHIPS

Rohde & Schwarz | Software Engineer

Jan 2025 – May 2025

Automation Manager

- Engineered a **TCP-based client-server system** to automate overnight Android device testing, successfully handling over **5,000** long-running test cases.
- Reduced manual testing cycle time by **60%** through implementation of robust automated test scripts and error logging.
- Designed and deployed microservice architecture using **gRPC** and **Consul**, ensuring **80%** system availability and auto-scalability for up to **100** instances across Linux and Windows environments.
- Collaborated with cross-functional teams to debug complex network issues with stack traces and memory profiling tools.

AV Media | Project Intern (Full Stack)

May 2024 – Dec 2024

Hologram Chatbot

- Developed a full-stack web application using **React** and **Microsoft Azure**, creating a seamless user interface for data management and retrieval.
- Implemented a scalable **RAG (Retrieval-Augmented Generation)** knowledge base, optimizing database queries to achieve response times under **0.2 seconds**.
- Integrated persistent data stored to manage user interaction for over **350** daily visitors, ensuring data integrity and security.
- Utilized **Azure Cognitive Services** to process audio and visual data, enhancing user engagement through real-time interactive features.

TECHNICAL PROJECTS (More in [GitHub](#))

StockAI | Market Analyzer

May 2025 – Aug 2025

- Implemented telegram CLI bot capable of handling **10+ command types** for real-time stock research.
- Integrated **LLM workflows** to analyze financial data from **5000+ US companies**, implementing strict data validation to ensure accuracy.

Personal Portfolio AI Assistant

Apr 2025 – July 2025

- Developed a context-aware chatbot assisting **100+ visitors** with **90% accuracy**.
- Implemented **API function calling** for navigation and email dispatch, executing requests in under 1 second.
- Optimized SQL queries and vector search retrieval to handle **3,000+ distinct questions** efficiently.

ACADEMIC PROJECTS

Agentic Data Analyst Platform| Final Year Project (Ongoing)

Aug 2025 - Present

- Architected a hierarchical agentic workflow (using **DAGs**) that **autonomously** decompose complex user queries into executable code tasks.
- Designed a novel “Bias-Contrastive” analysis layer where distinct AI agents assume **specific analytical personas** (e.g. Risk-Averse, Growth Optimist) to debate findings, providing data analysts with **diverse interpretive angles** rather than a single static viewpoint.
- Implemented a “Neutrality Synthesizer” that **mathematically** aggregates divergent agent opinions to filter out subjective noise, producing **objective, statistically grounded** insights that aid in **unbiased** decision-making.

LEADERSHIP EXPERIENCES

ISAR 2025

June 2025

Event Leadership & Project Management

- Directed all communications and collaboration with external event organizers, venue hosts and internal AV teams to ensure seamless program flow and on-site execution.
- Managed a 10-member team in managing all audiovisual and logistical aspects for **large-scale international event** with participants from multiple countries, including USA, Australia, Netherlands, and Denmark.
- Led the entire AV production lifecycle from pre-event planning and slide creation to live program execution and troubleshooting to ensure **100% on-schedule program flow** and resolve all technical issues in less than **5 minutes**.

NTU Rotaract Club

Aug 2023 – July 2024

Team Lead | Division of Community Service

- Led a team of 20 volunteers to plan, organize, and executed weekly visits for the elderly community members across Singapore.
- Managed all logistics and collaborated with external government organizations to plan and host **2 large-scale events** for seniors over the academic year.

NTU NBS Corporate Support & Facilities

Jan 2023 – Recent

Regular Logistic Team Lead

- Led a team of 15 members for fulfilling logistic requests.
- Managed streamlining logistics and facilities management through effective communication with key stakeholders and university faculty.
- Directed communications and collaborations between university departments and offices.

Annual Dinner Project Lead (2023,2024,2025)

- Overseen AV team of size **5** for slide production and reception team of size **8** for prize coordination to guarantee memorable and professional event for more than **150** attendees.
- Effectively directed communications with **5** university professors and **3** departments faculty to ensure seamless program flow and resolve all technical issues in less than **5** minutes.

MISCELLANEOUS

- **Soft Skills:** Continuous learning, Team leading, Time management, Team communication/collaboration, Problem-solving, Attention to details, independent working.
- **Interests:** iOS Shortcuts, Musical instruments, Travelling.