Hy Nguyen

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EDUCATION

The University of Adelaide   Adelaide, SA
Bachelor of Computer Science (Advanced)   *Feb 2024 – Dec 2026*
- **GPA**: 6.33/7.0

EXPERIENCE

Machine Learning Engineer Intern   Jul 2025 – Aug 2025
FPT Software   *Ho Chi Minh City, VN*
- Developing a novel NLP-powered reporting engine for US healthcare leader NRC Health, translating complex natural language queries into dynamic data reports.
- Engineering an advanced conversational AI solution leveraging state-of-the-art LLMs, semantic search, and the LangChain framework to automate and democratize data analysis.

PROJECTS

Cinesphere - Full-Stack Movie Discovery App | *Vue.js, Node.js, Express, REST API*   Mar 2025 – Jun 2025
- Developed a full-stack movie discovery app with 12+ features using Vue.js, Node.js, MySQL, and TMDb API, enabling dynamic search, reviews, and playlist management.
- Improved backend performance by 60% through SQL indexing, query optimization, and schema normalization, significantly reducing response times for search and playlist features.
- Built a modular backend with 3 teammates using the repository pattern, improving code reusability and testability across 15+ API endpoints.

Task Scheduler | *Python, Telegram Bot API, SQLite*   Dec 2024 – Feb 2024
- Developed a task management bot using asynchronous programming, reducing missed deadlines.
- Built a responsive system handling 50+ concurrent requests, increasing user engagement by 30%.
- Increased user productivity by 25% by integrating real-time notifications and structured task lists, resulting in enhanced time management.

COMMUNITY ENGAGEMENT

ESC Weekly   Jul 2022 – Jan 2025
- Founded a student-led English proficiency program benefiting 600+ high school students, improving IELTS scores and communication skills.
- Managed a team of 6 peer mentors by implementing training protocols and performance metrics, resulting in higher student satisfaction and improved learning outcomes.

AWARDS

Jane Street Electronic Trading Challenge | **First Place**   Mar 2025 – Mar 2025
- Outperformed 14 competing teams by developing a market-making algorithm implementing statistical arbitrage strategies with real-time data processing techniques, resulting in the highest portfolio value in the competition.

Youth Innovation Competition | **Special Prize**   Dec 2022 – Dec 2022
- Awarded for creating an object detection application with 87% accuracy, enabling Vietnamese users to expand their English vocabulary through interactive learning.

National English Olympiad | **Third Prize**   Feb 2021 – Feb 2021
- Demonstrated exceptional analytical reasoning, critical thinking, and advanced language skills in Vietnam's premier national competition, ranking in the top 1% of competitors.

TECHNICAL SKILLS

Languages & Databases: Python, C/C++, Java, JavaScript, SQL, HTML/CSS, R, MySQL
Developer Tools & Technologies: Git, GitHub, Docker, VS Code