

Marshall C (Chen Hongpo)

Singapore | +65 83881791 | chenhongpo@gmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

Results-oriented Computer Science graduate with expertise in AI, database management, and cloud infrastructure. Passionate about building data-driven solutions that solve real-world problems through innovative approaches and technical excellence. Eligible for US H1B1 Visa sponsorship (Singaporean citizen).

Work Experience

Data Engineer Intern

Jul 2023 - Jan 2024

Amplified Industries Inc | Boston, MA

- Implemented ELK Stack using Terraform, reducing data analysis processing time by 25%
- Configured Fluentbit for Kubernetes clusters, enabling real-time monitoring
- Migrated database architecture to AWS TimescaleDB clusters, boosting query performance by 30%
- Increased unit test coverage by 40% using pytest, resulting in fewer production bugs

AI Software Engineering Intern

May 2022 - Dec 2022

Cynapse Pte Ltd | Singapore

- Trained classification and object detection models with TensorFlow and PyTorch, achieving 92% accuracy in identifying workplace safety violations through video analytics
- Optimized model performance using advanced data augmentation techniques, reducing overfitting by 18%
- Collaborated on CI/CD pipelines for ML model deployment, decreasing deployment time by 40%

Projects

Pixel Jumper

Jan 2025 - Mar 2025

- Developed a retro endless runner game using React, TypeScript, and Tailwind CSS, implementing efficient algorithms for procedural level generation
- Optimized performance using component memoization and state management techniques

Personal Portfolio Website

Nov 2024 - Mar 2025

- Built a responsive website with Next.js, React, and Tailwind CSS to showcase projects and skills.
- Deployed on Vercel with a custom domain (chenhongpo.com) for real-time updates and accessibility.

Eye-Tracking for Stress Management

Jan 2023 - May 2023

- Created a real-time lighting system integrating Philips Hue and Tobii Pro Glasses 2 that analyzed pupil movement patterns to detect stress levels
- Developed a webhook-based data pipeline to transmit eye tracking metrics, automatically adjusting ambient lighting based on stress indicators

Education

Bachelor of Computing in Computer Science, Honours (Merit)

Aug 2020 - Dec 2024

Nanyang Technological University | Singapore

- Elective Focus: Artificial Intelligence, Data Science & Analytics
- GPA: 3.72/5.00
- Research Project: Network Analysis on fMRI Data - Analyzed connectivity patterns in Autism Spectrum Disorder, calculated functional connectivity matrices and classified ASD subjects with 62.5% accuracy
- Semester Abroad: Luleå University of Technology, Sweden (Jan-Jun 2023) - Completed master's-level Neural Networks and Deep Learning courses with distinction

Skills

- **Programming:** Python, Java, C, JavaScript, TypeScript, React, Node.js, Next.js, Flask, Tailwind CSS, PyTorch, TensorFlow
- **Data & Cloud:** PostgreSQL, SQL, AWS (EC2, S3, Lambda, TimescaleDB), Docker, Kubernetes, ELK Stack, Terraform
- **Other:** Git, Agile, Machine Learning, Data Augmentation, Unit Testing
- **Languages:** English (Native), Chinese (Native), Japanese (A2), German (A1)