

Guo Yichen

Mobile No.: (+65) 8942 3938 | Email Address: YGUO017@e.ntu.edu.sg
<https://guoyichen.netlify.app/> | <https://www.linkedin.com/in/sunnyray114514/>

Education

Nanyang Technological University, Singapore **Aug 2023 – May 2027**

Bachelor of Computing (Honours), Computer Science

- ❖ Honors (Highest Distinction) | GPA 4.66/5 | Specialization in Artificial Intelligence | Dean's List for AY23/24
- ❖ Relevant Coursework - Reinforcement Learning, Data Structures and Algorithms, Artificial Intelligence

University of Amsterdam, Netherlands **Aug 2025 – Jan 2026**

Exchange Student, Faculty of Science

- ❖ GPA 8.63/10 | Singapore Grading 5.0/5.0
- ❖ Relevant Coursework – Machine Learning, Computer Security, Multi-Agent System

Publications

Envisage: Towards Expressive Visual Graph Querying **Nov 2024 – May 2025**

IEEE TVCG (Proc. VIS). 2025, Fourth Author [\[Paper\]](#)

- ❖ Proposed an interactive **visual graph querying (VGQ)** system to express complex and underspecified query intent with automated backend Cypher-level programming
- ❖ Designed a 4-stage pipeline: **Query Expression** → **Verification** → **Progressive Execution** → **Result Analysis** for end-to-end query construction and validation

Experience

ST Engineering, Singapore **May 2025 – Aug 2025, Jan 2026 – Aug 2026**

Software Engineer Intern, General Engineering Centre Data Analytics (GEC DA) Department

- ❖ Engineered and delivered end-to-end full-stack features for ST's enterprise applications, ensuring seamless data flow and system reliability, optimize application logic for performance, scalability, and long-term maintainability.
- ❖ Full hand on with the team on a Splunk to SQL+Tableau transfer project on SBST's MRT operation data, improving algorithmic redundancy on 10^9 magnitude data to achieve second-level response time, collaborate closely with end users.

Nanyang Technological University, Singapore **Aug 2024 – May 2025**

Research Assistant at MICL Lab

- ❖ Join under NTU's URECA undergraduate research program, aim at develop an innovative visual analytics method through the Web3 and tech frontiers.
- ❖ Design interactive, scalable interface using React.js toolkit, enhancing adaptability for analysing complex data networks, contributing to the lab's research on advanced data visualization techniques.

Project Work

Domain-Specific Text Classification via BERT Fine-Tuning **Feb 2026**

<https://github.com/SunnyRaymond/CS224n-2024-Spring>

- ❖ Fine-tuned a pretrained BERT model for text classification, implementing tokenization, attention masking, and end-to-end training pipeline on labeled NLP datasets; benchmarked against baseline NN-based classifiers.
- ❖ Designed and evaluated experiments following research workflow (data preprocessing, hyperparameter tuning, error analysis), with qualitative analysis of model predictions and failure cases.

Real-Time Full Stack Chat Application **Jan 2025**

<https://github.com/SunnyRaymond/NextJS-Chat-App>

- ❖ Built a full stack real-time chat app with **Next.js**, **ReactJS**, **Tailwind CSS**, and **TypeScript**, featuring real-time messaging, group chats, audio/video calls, and mobile-friendly features.
- ❖ Implemented **Convex** for real-time database updates and deployed on **Vercel**, integrated key features including user authentication via **Clerk**, ensuring a responsive, cross-platform user experience.

Skills

- ❖ Programming: JavaScript, HTML5, CSS3, Python, Java, C, R
- ❖ Full-stack Development: React.js (Next.js), Tailwind CSS, Chrome browser plugin development, Node.js
- ❖ Data Analytic: Data Visualization, Data Cleaning, Machine Learning (Pandas, Numpy, Tensorflow)
- ❖ Language: Proficient in English, Chinese, French (intermediate)