

ANDREW LI

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EDUCATION

Northwestern University, McCormick School of Engineering and Applied Sciences Evanston, IL
B.S. Computer Science, Integrated Sciences¹, Math Sept 2022 - June 2026
Fall 2022 Honor Roll, GPA 3.94/4.00
Relevant Coursework: Imperative Programming, Functional Programming, OOP, C/C++, Systems

SKILLS

Programming Languages: TypeScript, JavaScript, Java, React, Next.js, Node.js, Express.js, Python, C, C++, Racket, HTML, CSS, Sass, Julia
Spoken Languages: English (native), Mandarin Chinese (native)
Other Technical Skills: DigitalOcean, Herokuapp, Git, MongoDB, Processing
Graphical Skills: Adobe Photoshop, Adobe InDesign, Adobe Illustrator, Canva

RESEARCH

SDRG TensorFlow Layer (TensorFlow, Python) 2022
• Research project with TensorFlow to apply the Strong-disorder renormalization group (SDRG) technique to neural networks of 1D input to decrease loss and increase accuracy
• Found that the SDRG technique decreases accuracy and exponentially increases time complexity

EXPERIENCE

National High School Debate League of China Remote
Lead Software Engineer December 2022 - present
• Employed MERN stack to engineer an unprecedented judge evaluation system for debate judges across China to improve judge quality and student education for over 3000 unique students.
• Hand designed simple authentication system and Express.js (TypeScript) REST API routes to make experience for non-technical debate staff seamless.
• Deployed set of automatic tools for debate tournament coordination between Tabroom and tournament group chats to eliminate preventable delays and trained tournament staff on usage.

Northwestern University IEEE Student Group Evanston, IL
ML/AI Team November 2022 - present
• Part of team of five working on machine learning and AI development using modern AI frameworks including Tensorflow, OpenCV, Pytorch

Integrated Science Program Evanston, IL
Website Editor November 2022 - present
• Streamlined bug tracking to fix 20+ bugs for Northwestern department website using a Notion database
• Created sample schedules for prospective students to increase attractiveness to Northwestern applicants

Tsinghua International School Beijing, China
Student Software Developer September 2017 - June 2022
• Single-handedly developed, published, and managed high school research conference's official, public-facing website and Model UN club's official conference website with over 1000 combined visitors.
• Implemented CloudFront CDN to deliver multimedia content to all users including those in China.
• Engineered Express REST API to connect to MongoDB database to handle complex registration system.

PERSONAL PROJECTS

Q Learning Snake AI (Julia) 2022
• Used the GameZero.jl Julia library and Q Learning principles to create a robot to play Snake
Scratch Card and PowerBall Console Game (Julia) 2022
• Created console game simulation of scratch card and PowerBall gambling games in Julia
Personal Website (React, TypeScript) 2022
• Engineered Next.js personal website with REST API to pull project portfolio from Airtable

AWARDS

Conrad China National Finalist Conrad Challenge, China Chapter
School innovation award for unique pharmaceutical product design on behalf of entire high school June 2021
High School Mathematical Contest in Modeling HiMCM
Team captain for math modeling competition with prompt of predicting future droughts in Lake Mead.
Honorable Mention. Feb. 2021

¹The integrated sciences major combines math, physics, chemistry, and biology into a single major