# Andy Ye

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#### **EDUCATION**

Georgia Institute of Technology

Bachelor of Science in Computer Science

Atlanta, Georgia

Aug 2024 - May 2026

Neuqua Valley High School

GPA: 4.6/4.0

1560 SAT, Summa Cum Laude, All 5s on 16 APs

Naperville, Illinois Aug 2020 - May 2024

## **EXPERIENCE**

**CODEBYTES** 

Co-Funder, Organizer, Full-Stack Developer

Naperville, Illinois Aug 2023 – Present

- Organized and managed multiple inter-school programming competitions across the Chicago suburb area, attracting over 50+ in-person participants from 5+ schools.
- Contributed to the design of 30+ algorithmic programming problems, along with meticulously-crafted test cases and constraints.
- Designed and created a comprehensive website, utilizing modern web technologies and techniques to streamline registration, problem submission, automated judging, and real-time contest rankings.

**HIGH OAKS ROBOTICS** Naperville, Illinois

Team Member

Sept 2022 - May 2024

- Designed and assembled several complex, competition-ready robots meshing various components together such as multi-stage lifts, advanced intake mechanisms, precision claws, and integrated odometry systems.
- Leveraged CAD (onShape) and CNC to design and manufacture intricate custom parts, ensuring seamless compatibility with existing mechanisms.
- Developed effective control algorithms for holonomic autonomous robot navigation via guided vector fields while minimizing path deviations through linearized quadratic regulators using the OjAlgo and JTransform libraries in Java.

**GNOMON LEARNING** Naperville, Illinois

Co-Funder, Tutor, Full-Stack Developer

July 2023 – May 2024

- Led 20+ team of tutors providing free educational support both online and in-person for K-12 students on AP courses, standardized test preparation, and core academic subjects.
- Managed and scaled tutoring operation by partnering with the Naperville and Aurora Public Library.

## **PROJECTS**

## CODEBYTES WEBSITE | codebytes.codes | github.com/idke64/codebytes

2023 - 2024

- Architected a responsive, full-stack website serving as both an event platform and a competition portal utilizing Next[S, React, and TailwindCSS, including integrated authentication and data management provided with Firebase.
- Implemented a robust submission and judging system supported by a REST API, featuring immediate feedback, access to past submission details, and a built-in code editor that supports 10 languages.
- Deployed highly-available, self-hosted backend judging server via CloudFlare Tunnels, incorporating worker processes to handle multiple requests concurrently.
- Developed Markdown-based blog using MDX for dynamic content creation.

#### GNOMON LEARNING WEBSITE | gnomonlearning.org

2023 - 2024

- Engineered an innovative learning platform using NextJS, React, and TailwindCSS, allowing for the creation and sharing of user-generated practice quizzes
- Leveraged Firebase to manage data storage and implement user authentication.

### TEAM FORTRESS 2 MOD | github.com/idke64/shoehud

2022

• Developed a custom Heads-Up Display (HUD) by modifying in-game settings to optimize the user interface and enhance visual clarity

#### **SKILLS**

Technical Skills: HTML/CSS, Javascript, Python, C++, Java, ReScript, Firebase, React, NextJS, TailwindCSS, Markdown, CAD, REST APIs, Git, Svelte, Sveltekit, Cloudflare, Mathematica, LaTeX

Languages: Fluent in Cantonese, English; Conversational Proficiency in Mandarin