

YICHEN GUO

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❖ EDUCATION

New York University, College of Arts & Sciences

B.A. in Computer Science, Psychology, minor in Data Science, GPA: 3.86/4.0

- Dec 2024

New York, NY

❖ SKILLS

- **Programming Languages:** JavaScript, Java, Python, HTML/CSS, C, R
- **Frameworks:** Spring Boot, Node.js, Flask, React, Vue, Angular, Express, Electron
- **Tools:** RESTful API, GraphQL, MongoDB, PostgreSQL, MySQL, Heroku, Git, AWS, Microsoft Azure, Docker
- **Skills:** Full-Stack Development, Operating Systems, Data Structures, Basic Algorithm, Parallel Computing, OOP

❖ PROFESSIONAL EXPERIENCE

Huawei

Jun 2024 - Aug 2024

Software Engineer Intern

Nanjing, China

- Spearheaded the redesign and deployment of Huawei HarmonyOS's app search feature, integrating **cached** app usage history with an **Elasticsearch**-based recommendation algorithm, enhancing search quality by 49%.
- Reduced app information retrieval latency by 37.8% through the implementation of **Java thread pool** techniques.
- Developed APIs using **Spring Boot**, **MyBatis**, and **SQL** to automate data retrieval, reducing storage issues by 24.5%.

Octavate (Client: Warner Bros.)

May 2023 - Aug 2023

Software Engineer Intern

New York, NY

- Designed a multi-tier pipeline system that collects information on 1200+ global events using **Python Selenium** and **Google Cloud Compute Engine**, feeding it to a web interface to display music talents for investors.
- Led the development of an interactive **React** web interface to display queried **MySQL** data from **AWS**.
- Optimized backend scripts using **LangChain**, and **OpenAI LLMs**, improving scraping efficiency by 37.5%.

NYU Dynamical Systems Lab

Jun 2022 - Dec 2022

Data Analysis Research Assistant

New York, NY

- Constructed 5 **MATLAB** image-processing programs to extract velocity fields from over 3,000 frames.
- Co-authored and published a report in an SCI journal, receiving the NYU Undergraduate Research Award. [\[link\]](#)

Didi (China's Uber)

Jun 2021 - Aug 2021

Information Technology Intern

Beijing, China

- Refactored the codebase for Didi's internal recruiting system and secured user authentication using **RESTful APIs**, **Node.js**, **Express**, **AJAX**, **cookies**, and **sessions**.

❖ RELEVANT PROJECTS

AI-based Desktop Sudoku Solver App - "SudokuW/Ease" [\[Github\]](#)

Feb 2023 - Sept 2023

- Prototyped a desktop application to scrape and solve Sudoku puzzles using **JavaScript**, **Electron**, **GraphQL**, **Vue**, **Flask**, **PostgreSQL**, **SQLAlchemy**, **WebSocket**, and **TailwindCSS**.
- Constructed a **Python DFS** and **Constraint programming** Sudoku algorithm that solves 12 world "hardest" puzzles in 0.04s.

C-based Multithreaded RLE Encoder

Jan 2023 - Feb 2023

- Designed a **C** encoder for generating the Run Length Encoded string using **POSIX threads** and 2 **producer-consumer algorithms**, achieving a 0.692 speedup for a 20000 input size.