

# Ethan Chang

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## Objective

Computer Science-BS student seeking a Spring/Summer 2026 co-op/internship - Available January 2026 through mid-August.

## Education

### Rochester Institute of Technology, Rochester, NY

May 2028

#### Bachelor of Science, Computer Science

GPA: 3.41/4.0

- Dean's List: Fall 2024, Spring 2025

## Employment

### Artificial Intelligence and Biomedical Informatics and Data Science (AIBIDS) Program

May 2025 - Jul 2025

#### Data Science Intern

Pittsburgh, PA - Hybrid

- Collaborated with faculty and peers on data-driven projects addressing healthcare and informatics challenges.
- Analyzed complex patient data to generate actionable insights, supporting predictive modeling initiatives that improved care strategies.
- Presented findings to faculty, peers, and stakeholders, summarizing results and sharing practical recommendations.
- Skills: Collaboration, Communication, Data Cleaning, Data Analysis, Data Storytelling, Data Security, Adaptability

### NTID Learning Center

Sep 2025 - Present

#### Software Development Tutor

Rochester, NY - Onsite

- Provide individualized and group tutoring sessions on programming concepts across Python, Java, and Excel-based logic.
- Adapt tutoring approaches to diverse learning styles, using ASL and spoken communication to support Deaf and hard-of-hearing students.
- Reinforce computational thinking and debugging strategies to strengthen coding confidence and problem-solving skills.
- Skills: Bilingual Communication, Accessible Teaching, Instructional Adaptability, Active Listening, Confidence-Building

## Projects

### ACL Unplanned Surgery Predictive Model (AIBIDS)

Jun 2025 - Sep 2025

- Accessed UPMC database of de-identified ACLR patients (2013-2021) for predictive modeling.
- Executed complex SQL queries with CTEs and LEFT JOINs to aggregate clinical datasets.
- Built logistic regression models using SDoH factors to predict unplanned surgery needs.
- Tools: Python, SQL, Pandas, Jupyter Notebook, LLMs, Prompt Engineering, Scikit-learn, PostgreSQL, Matplotlib

### Movie Database Management Systems Project

Jan 2025 - May 2025

- Built and deployed a PostgreSQL movie database and application using Python and SQL.
- Collaborated with a group of 5 to design and develop the database and application features.
- Developed a Python application with SSH tunneling for secure remote database access and management.
- Tools: Python, SQL, PostgreSQL, SSH Tunnel, Faker, GitHub, DataGrip, Kaggle, psycopg2

### Chroma

Aug 2025 - Present

- Collaborated within a team to design and implement a full-stack web app for interactive color-based data visualization.
- Developed a responsive front-end using Angular and integrated RESTful APIs with a Spring-based Java backend.
- Applied object-oriented design, unit testing, and refactoring to ensure maintainable and scalable client-server code.
- Tools: Angular, Spring Boot, Java, REST API, TypeScript, JUnit, Swing, GitHub, Agile/Scrum methodologies

### Wildfire Simulation

Sep 2024 - Oct 2024

- Designed and implemented a C-based wildfire simulation modeling probabilistic fire propagation across a grid-based forest.
- Developed probabilistic fire spread algorithms incorporating neighbor states, tree density, and burn probability with Fisher-Yates random initialization.
- Enhanced simulation performance and accuracy through iterative debugging, modular refactoring, and thorough documentation.
- Tools: C, GCC, Makefile, Unix/Linux CLI, MobaXterm, VS Code, GitHub, Valgrind

## Leadership & Involvement

### RIT/NTID Cross-Registered Student Advisory Board (XSAB)

Sep 2025 - Present

#### Golisano College Of Computing and Information Sciences (GCCIS) Representative

- Provide support and advocacy for cross-registered students, ensuring their voices are represented within the RIT/NTID community.
- Facilitated communication by attending XSAB meetings and sharing updates on events, resources, and services to keep students informed and engaged.
- NTID Career Fair Ambassador - Nominated for the role by the NTID Co-op and Career Center
- Skills: Leadership, Advocacy, Teamwork, Student Engagement, Organizational Skills, Interpersonal Skills, Collaboration