

Owen Oertell

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EDUCATION

Cornell University

Ithaca, NY

Bachelor of Science in Computer Science, Electrical Computer Engineering; Minor in Mathematics. GPA: 4.09/4.0.

May 2025

- **Relevant Coursework:** Introduction to Analysis of Algorithms, Object Oriented Programming & Data Structures

Georgia Institute of Technology

Atlanta, GA

Full Time High School Dual Enrollment. GPA: 4.0/4.0.

Aug 2021 - May 2022

- **Relevant Coursework:** Linear Algebra, Multivariable Calculus, Differential Equations, Discrete Mathematics, Graduate Level Computational Foundations of Machine Learning

EXPERIENCE

Researcher

Ithaca, NY

Cornell University Artificial Intelligence, in Direct Collaboration with Meta AI

September 2022 – Present

- One of two freshmen selected to join CUAI.
- Participating in reading groups for Reinforcement Learning, Computer Vision, and ML Systems.
- Beginning research targeting ICML 2023 conference.

Lab Researcher

Atlanta, GA

Dickson Lab, Georgia Institute of Technology

May 2020 – Present

- Adapted C code from bacterial genome to the human genome for novel copy number variation detection algorithm.
- Reduced memory consumption by 300GB while maintaining speed via parallelization and low-level C programming.
- Assisted in development of efficient blood assay technique for bacterial infection identification.
- Increased data gathering speed by 4x by writing code to use multiple cameras in parallel with single camera port.
- Co-authored low budget blood assay technique paper; submission for publication in process.
- **Utilities:** C (Serial and Parallelized), OpenMP, OpenACC, Makefiles, OpenCV, Linux, Python, Valgrind

Head of Engineering & Secretary on Board of Directors

Boise, ID

Y STEM and Chess Inc 501(c)(3)

April 2020 – July 2022

- Managed 30 undergraduate and professional SWEs.
- Led development of website: YStemAndChess.com to provide free mentoring of underprivileged children from around the world and expand Y STEM and Chess to tutor more than 800 children.
- Interviewed and hired interns and full time developers.
- Engineered and implemented scalable microservice architecture designs to minimize cost.
- Developed real-time chess pairing and mentoring system.
- Implemented recording storage system allowing parents and students to review lessons.
- **Utilities:** Node.js, PHP, AWS, Angular.js, MongoDB, Docker, Kubernetes

PROJECTS

PrepByAI.com (Co-Founder)

- Led development of website: PrepByAI.com, a free ACT preparation site.
- Built machine learning model to identify needs and suggest questions to improve performance using term frequency-inverse document frequency and k-means clustering.
- Over 500 regular users and 9,000+ questions answered to date.
- **Utilities:** Flask, PostgreSQL, TensorFlow, React.js, JavaScript, Python

AWARDS

- Chamblee High School Magnet Salutatorian.
- Technology Student Association National Competition (each category 500+ submissions): 2nd in software development for DataManager project; Top 25 for data science for pulsar star detection deep neural network.
- Georgia Science and Engineering Fair Award for *Novel Application of Document Distance for CNV Detection*.
- National Merit Scholarship Recipient.
- Presidential Scholar Semi-finalist.

TECHNICAL SKILLS AND INTERESTS

Languages: C (OpenACC, OpenMP), Python C++, Java, SQL, C#, JavaScript, Ruby, HTML/CSS

Developer Tools: Jupyter Notebooks, Git, Docker, Kubernetes, VS Code, Amazon AWS, VIM, Makefiles

Libraries: TensorFlow, Valgrind, Numpy, Pandas, OpenCV, Pillow, Matplotlib

Frameworks: React.js, Angular.js, Electron.js, Node.js, Express.js, .NET core

Databases: PostgreSQL, MongoDB

Interests: Mathematics (Pure and Applied), Theoretical Machine Learning, Go (board game), Magic: The Gathering, Golf