# Owen Oertell

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### **EDUCATION**

Cornell University

Ithaca, NY

BS in Computer Science, ECE, Minor in Mathematics

Expected Graduation: May 2025

Georgia Institute of Technology

Atlanta, GA

High School Dual Enrollment. ACT: 36/36. GPA: 4.0.

Aug 2021 - May 2022

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

#### EXPERIENCE

#### Paid Research Member, Dickson Lab

May 2020 - Present

 $Georgia\ Institute\ of\ Technology\cdot Internship$ 

Atlanta, GA

- Adapting 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 programming in C.
- Worked on efficient blood assay technique. Increased data gathering speed by 4x. Paper nearing submission for publication.
- Utilities: C (Serial and Parallelized), OpenMP, OpenACC, Makefiles, OpenCV, Linux, Python,
  Valgrind

## Head of Engineering

Apr 2020 – Jun 2022

Y STEM and Chess Inc 501(c)(3). Part-Time

Boise, ID

- Led development of website: <u>YStemAndChess.com</u> allowing for free mentoring of underprivileged children from around the world and expanding reach of Y STEM and Chess.
- Managed 30 undergraduate and professional SWEs.
- Engineered scalable architecture designs to minimize cost.
- Built real-time chess paring and mentor system.
- o Utilities: Node.js, PHP, Angular.js, MonogDB, Docker

#### Projects

## Cofounder, PrepByAI.com

Jun 2021 - May 2022

- $\circ\,$  Led development of website: <u>PrepByAI.com</u>, a free ACT preparation site.
- Built a machine learning model to improve ACT study efficiency by identifying user weakness areas and suggestings questions to improve in those places.
- Over 500 regular users and 9,000+ questions answered.
- o Utilities: Flask, PostgreSQL, TensorFlow, React.js, JavaScript, Python

## TECHNICAL SKILLS

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

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

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

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

Databases: PostgreSQL, MongoDB

## Interests

Language Skills: English (fluent), Spanish (Limited working proficiency)

Interests: Mathematics (Pure and Applied), Thoretical Machine Learning, Computational Biology, Go (board game),

Philosophy, Golf