Trent Conley

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EDUCATION

Georgia Institute of Technology

B.S. in Computer Science

- **Computer Science Concentration**: Intelligence and Information Internetworks
- Relevant Coursework: Algorithms, Systems & Networks, Computer Vision, Databases, Robotics

WORK EXPERIENCE & RESEARCH

Thrust AI

Software Engineering Contractor

- Developed a custom computer vision pipeline that finetuned open-source models for detection and recognition.
- Trained and refined the models using TensorFlow, integrating them into a streamlined web-based real-time camera workflow.
- Delivered contract valued at \$10,000 for Thrust AI, and continuing to work on more full-stack contracts.

Mach Industries

Software Engineering Intern

- Led team of three interns to build scalable, distributed framework for Monte Carlo simulations of Mach's missiles.
- Developed fast, accurate model of complex aerodynamic dataset for 6DOF flight dynamics by creating hash function resulting in $<1\mu$ s lookup time, allowing Mach to use high dimensional aero data.
- Received full-time offer.

Viasat

Software Engineering Intern

- Automated Viasat's manual program management processes, achieving data capture of over 100+ programs and improving efficiency by developing a comprehensive tool based on Angular frontend and Node backend.
- Streamlined the integration of existing documents by developing a Python-to-SQL conversion script, enabling nondevelopers to update the codebase.

Oak Ridge National Laboratory (ORNL)

Principal Investigator

- Simulated a Brownian Ratchet, a theoretical nanodevice that explores the limits of thermodynamic principles.
- Allocated 1,000 CPU hours by ORNL committee after evaluation for feasibility, potential for high-impact science.
- Presented research findings of Brownian Ratchet mechanical breakdown to audience of over 100 people.

PROJECTS

Lexara

Founder and CEO

- Architected a full-stack AI writing assistant using React, TypeScript, Node.js microservices, and the Google Docs API, currently serving ~100 requests/hour.
- Implemented secure authentication and Stripe subscriptions, leveraging webhooks for real-time payment updates.
- Developed a distributed, scalable bot that monitors Google Docs comments, uses open-source LLMs for natural language processing, and provides contextual suggestions.

Hacklytics Hackathon

Winner

- Competed in hackathon of over 1,200 hackers, winning second place in the Intel track, receiving prize of \$1,000.
- Developed an AI platform to augment limited image datasets using transformations and Stable Diffusion.

Real-Time Eye-Controlled Drone

Personal Project

Built a drone control system enabling hands-free flight, allowing drone to be piloted with eye & head movements.

SKILLS

Technical Skills: Rust, Python, C++, SQL, JavaScript, CSS, HTML, React, Bash, Flask, Git, MongoDB, NodeJS, NumPy, OpenCV, Pandas, PyTorch.

Huntington Beach, CA

October 2024 - Present

May 2024 – August 2024

Oak Ridge, TN

June 2021 - May 2022

Atlanta, GA

January 2025 - Present

Atlanta, GA August 2023

Atlanta, GA

February 2024

Carlsbad, CA May 2023 - August 2023

Remote

Atlanta, GA

December 2025 GPA: 3.9