

Thomas Raymond Deatherage

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Education

Georgia Institute of Technology | *Expected 2025*

- MS Computer Science, Computing Systems Specialization (Project Track)
- GPA: 4.0

Virginia Commonwealth University | *2008 - 2012*

- BS Biochemistry, Mathematics Minor (*summa cum laude* with University Honors)
- GPA: 3.92

Current Research

Student Research Lead, The Human-Augmented Analytics Group | *Georgia Institute of Technology & The University of Florida* | *December 2024 - Present*

- Managing 10 graduate student researchers in the Human-Augmented Analytics Group across seven machine learning & ecology labs
- The Human-Augmented Analytics Group was conceived as a way to bring experienced computer scientists to disciplines with opportunity but fewer computationally-proficient researchers, e.g., the life sciences, law, etc.

Research Assistant, BioVision Lab | *Georgia Institute of Technology & The Florida Museum of Natural History* | *May 2024 - Present*

- Developing a novel research platform for ecologists and other scientists using machine learning, computer vision, and large language models
- Investigating novel approaches to species classification focusing on the challenges of the biodiverse long tail of species data
- Designing and implementing a structured-query interface for LLM interactions to improve scientific query precision

Professional Experience

Senior Software Engineer | *Meta (Remote)* | *March 2022 - July 2023*

- Worked on systems architecture, focusing on issues of scale
- Developed product ideas from an engineering perspective
- Served as technical lead and architect of five separate project groups, primarily focusing on chat and telephony applications at scale (10k-1M reqs/sec)

Senior Software Engineer | *Kustomer (New York, NY)* | *July 2018 - March 2022*

- Engineered a distributed microservices backend architecture
- Focused on issues of robustly handling traffic and storage scale
- Drove product direction from a technical perspective

Co-Founder / *Funderdog (New York, NY) | April 2017 - July 2018*

- Technical co-founder of an online donations social network
- Designed and implemented the entire codebase
- UX studies & design
- Sales, operations, etc.

Software Engineer / *Shutterstock (New York, NY) | September 2013 - April 2017*

- Developed the internal payments portal
- Developed the internal business-insights tools
- Developed one of *Shutterstock's* niche brands, *Offset*, a high-end photography provider

Associate Scientist / *Arista Laboratories (Richmond, VA) | November 2012 - May 2013*

- Performed chemical constituent analysis in both a "wet" and "dry" lab setting

Mentorship & Teaching Experience

Industry Mentor / *The City University of New York | September 2019 - June 2021*

- Mentored undergraduate interns as part of a NYC-sponsored CUNY-industry partnership to promote the careers of computer science students
- NYC Office of the Mayor: <https://tinyurl.com/4bv6mwm>
- Medium article: <https://tinyurl.com/yfrehx95>

Industry Mentor / *The Flatiron School (New York, NY) | 2013 - 2014*

- Mentored early career software developers, particularly those seeking their first programming job

Teaching Assistant / *Virginia Commonwealth University (Richmond, VA) | January 2011 - May 2011*

- Assisted instruction in general chemistry introductory course
- Led small-group recitation sessions
- Proctored exams

Volunteer Experience

Clinical Volunteer / *VCU Medical Center (Richmond, VA) | September 2009 - August 2010*

- Burn Unit, Anesthesia, and the General Clinical Research Lab

Professional Development

University of Chicago Basic Program | *October 2023 - Present*

- Four year liberal arts curriculum that studies the foundational texts in Western political, social, literary and scientific thought

Google UX Design Professional Certificate | *December 2024 - Present*

- Comprehensive professional certification in user experience design fundamentals
- Studying user-centered design processes, wireframing, prototyping, and user research methodologies

The Flatiron School | *May 2013 - August 2013*

- Web development with Ruby on Rails

Awards and Achievements

- Winner, AngelHack Manhattan Hackathon (2018)
- University Honors College Member & Graduate, Virginia Commonwealth University (2009-2012)
- Dean's List, All Semesters, Virginia Commonwealth University (2008-2012)

Research Interests

- Computer Vision & Machine Learning
- Language Models & Vision Language Models
- Computing Applications in Ecology & Biology
- Computing Applications in Research & Education
- Human-Computer Interaction (HCI) & Human-Centered Computing (HCC)

Technical Skills

- **Programming Languages:** Python (primary), Node.js (extensive experience), JavaScript/TypeScript for frontend (good), Java (coursework), C (coursework), Ruby (dated), Perl (dated)
- **Data Science:** Pandas, NumPy, SciPy, Matplotlib, Jupyter
- **Development Tools:** Git, Docker, Linux/Unix, AWS
- **Web Technologies:** Vue, Node.js w/ Express, Python w/ FastAPI, REST APIs, microservices, eventually-consistent systems