Morgann Thain

📍 56 E Broadway, New York NY 10002 | ☎ 215-528-3603 | ✉ momothain.cs@gmail.com | linkedin.com/in/morgann-thain/

EDUCATION

Brown University
Master's of Computer Science (M.S.)*, 3.5/4.0 GPA*   Providence, RI | **May 2024**
Bachelor's of Computer Science (B.S.), *3.6/4.0 GPA*   Providence, RI | **May 2022**
Relevant Coursework: Software Engineering, Algorithms and Data Structures, Data Science, Computer Vision, Machine Learning, Deep Learning, Software Security, UIUX, Human-Computer Interaction, Logic, Programming Languages, Statistical Inference, Honors Linear Algebra, UIUX, Real Time & Embedded Systems, Theory of Computation, Compilers.

PROGRAMMING LANGUAGES & SKILLS:

Python: Flask, Django, Pandas, NumPy, Pydantic. **Java:** Spring Boot, JPAPI, JPQL, JUnit, Gradle. **Data Management:** PostgreSQL.
Cloud/Security: Google Cloud Platform, Datadog, Docker. **Frontend/Design:** React, HTML, CSS, JS. **Systems:** C, ASM: x86-64.

PROFESSIONAL EXPERIENCE

InstaLily, *Founding Software Engineer*   Manhattan, NY | July 2023 – Present
• Led our first $1M contract as project manager and lead engineer above four engineers for a new unstructured text evaluation and generation product. Broke down insurance appeal letters into contextless chunks using embeddings and LLM-based extraction, incorporated nurse feedback to cluster extracted phrases into key topics using pairwise semantic comparison, and scaled a multi-agent pipeline for 1st draft generation of letters via a live, SOC2 and HIPAA-compliant Azure Cloud deployment with Datadog monitoring.
• Designed and implemented a PoC, sales presentation, and live demo for a core semantic labeling and analytics product. Applied to customer service calls data to gain our first client contract, deployed to this day on Google Cloud.
• Researched and distilled over 100 published research papers, AI and LLM releases, and educational articles for our engineers and CEO to design and improve bespoke automation solutions for our supply chain and healthcare clients.
• Brought the company from $15M pre-seed valuation to $175M Series A valuation within a year and a half.
Oliver Healthcare Packaging, *Process Engineer Intern*   Feasterville, PA | Summer 2022
• Fixed dysfunctional vision system by analyzing faulty alerts and incorporating operators' experience to fine-tune cameras and LED banks, and digitally calibrate exposure time, LED brightness, filter sizes, and gradient thresholds.
• Coordinated and troubleshooted issues between the machine operators, delivery team, and upper management.
World Informatix Cyber Security (WICS), *Cybersecurity Intern*   Port St. Lucie, FL | June 2021– August 2021
• Enumerated publicly available sensitive info of WICS and various at-risk companies using Dark Web searches and OSINT tools.
• Presented to WICS staff, explaining technical aspects of how Dark Web, Tor, and OSINT enumeration work and how to use them.
Brown University, *Teaching Assistant*   Providence, RI | Spring-Summer 2021
• Held 25-student labs and office hours for 4 hours each week. Taught core concepts and co-debugged one-on-one.
• Designed, wrote stencil code, and created a handout for an original finite state automata assignment to guide students to graph data structure and analyze correctness of systems through state searches.

UNIVERSITY PROJECTS

Anime Style Transfer onto Detected Faces, *Python (NumPy, OpenCV)*   Providence, RI | June 2022 – August 2022
• Detected faces using DNN and MTCNN convolution. Drew bounding boxes around multiple faces and cropped for style transfer
• Created a style transfer CNN by extracting layers from the VGG19 network, gram matrix calculation, SGD, MSE, and regularization
foodCOMA: Recipe Recommendation Website, *Java w/ JS, HTML, CSS*   Providence, RI | June 2020 – August 2020
• Wrote a recommendation algorithm to organize recipes in a "nutrient" k-dimensional space weighted by search history for querying.
• Created a supporting type-generic k-dim tree data structure that supports translation, stretching, normalization, and searching.
• Implemented a password-encrypted login system based on Bcrypt salt and hashing to securely store user info over many sessions.
Thread-safe Database Server, *C*   Providence, RI | December 2019
• Programmed a server which manages a database of key-value pairs over a network. Implemented in C using mutexes such that multiple users can concurrently add, remove, and search for entries in the database without any data loss or memory leaks.

LEADERSHIP EXPERIENCE

Ultimate Frisbee, *BMo, Providence Poultry Captain*   Providence, RI | 2017 – 2023
• Defensive starter on our College Nationals level ultimate team. Created, captained, and organized logistics and tournaments for club.
ArCoNet, YOBC, **Abington Friends,** *Concertmaster*   Philadelphia, PA | 2010 – 2018
• Performed in the "US Bands Concert Series" at Verizon Hall, Kimmel Center and in the Dalí Quartet International Music Festival.

AWARDS, SKILLS, INTERESTS

Awards: 2022 USAU College Nationals 2nd Place; 2017 National Merit Scholarship; 2018 2nd Place Jenkintown Art Festival
Interests: Frisbee, Lifting, Violin, Classical Music, Dance, Reading