

Matthew Yang

matthewyangcs.github.io

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EDUCATION

Georgia Institute of Technology

B.S. in Computer Science, GPA: 4.0

Atlanta, GA

Aug 2019 - Dec 2021

SKILLS

Languages: Python, Java, Matlab, PHP/Hacklang, C++ (STL)

Technologies: Jupyter, Dash, Flask, AWS (DynamoDB, S3, Lambda, SSM, EC2, etc.)

Python/ML Libraries: PyTorch, NumPy, attrs, scikit-learn/SciPy, pandas, Plotly, Matplotlib, Keras (Basic)

WORK EXPERIENCE

Snorkel AI

Machine Learning Engineering Intern

Palo Alto, CA

November 2021 – present

Hudson River Trading

Algo Software Engineering Intern

New York, NY

June 2021 – August 2021

- Designed and built a computational graph library (in Python) for construction of medium-frequency trading signals
- Created plotting and querying library for statistical analysis and visualization of massive amounts of data
- Implemented optimized algorithms for aggregating data from TrinoDB tables with trillions of rows

Facebook

Software Engineering Intern

Menlo Park, CA

Jan 2021 – March 2021

- Created an algorithm visualization and evaluation tool suite (featured in team's H1 report) for services ranking
- Improved weighted accuracy of the production taxonomy matching algo from ~45% to ~68% on 78k unique items
- Developed back-end APIs (used in production) for data querying on the new services platform

Amazon Lab126

Software Development Engineering Intern (Confidential)

Sunnyvale, CA

May 2020 – August 2020

- Leveraged AWS EC2, S3, DynamoDB, Systems Manager, and CloudWatch, to automate data processing for ML pipeline—saving 3 hours/session (10,000+ sessions in future)
- Revamped an audio processing procedure to increase accuracy on a key metric from ~20% to ~98%
- Implemented core back-end functionality for a new data-collection website designed for WFH research studies

Georgia Tech College of Computing

Graduate Teaching Assistant for CS 3600 (Intro to AI)

Atlanta, GA

August 2020 – Present

RESEARCH

CLAWS Computational Data Lab

Graduate Researcher

Atlanta, GA

August 2021 - Present

- Exploring explainability behind recommendation filter bubbles and evaluating SOTA recommender systems

Entertainment Intelligence Lab

Undergraduate Research Assistant

Atlanta, GA

August 2020 - Dec 2020

- Applied deep reinforcement learning agents to popular multiplayer games such as Minecraft—used SOA algorithms that can adapt to unknown novelty in games without needing human intervention (DARPA program)
- Created API platforms/interfaces for game simulation and reinforcement learning training

Data-Driven Education Team (VIP Program)

Project Lead

Atlanta, GA

August 2019 – Dec 2020

- Oversaw project JITI (Just-In-Time-Intervention) to predict student grade outcomes for Georgia Tech online MS courses using edX clickstream data, piazza forum data, and assignment data—stored in PostgreSQL & MongoDB
- Used Python Dash (Plotly) to build core features of a web application for struggling students, incorporating our research insights such as grade prediction, recommended resources, and areas of improvement