# Nicholas Papciak

# EDUCATION

Y Combinator San Francisco, CA

Summer 2025 batch

September 2025

Georgia Institute of Technology

Atlanta, GA

B.S. in Computer Science, Intelligence & Theory, 4.0 GPA

December 2024

Graduate Coursework: (CS 7632) Game Artificial Intelligence, (CS 7643) Deep Learning, (CS 7650) Natural Language Processing, (ECE 6100) High Performance Computer Architecture, (CS 6515) Graduate Algorithms, (CS 7530) Randomized Algorithms, (CS 6550) Continuous Algorithms: Optimization & Sampling

## EXPERIENCE

Co-founder San Francisco, CA

Datafruit Present

cofounder

Software Engineering Intern

Menlo Park, CA

Meta

May 2025

- Machine learning engineering for Facebook marketplace feed delivery. Experimenting with adding an exponential dropoff
  to marketplace post recency features to increase meaningful listing interactions.
- Left to pursue Datafruit in the YCombinator S25 batch.

### LEADERSHIP

## **Head Teaching Assistant**

May 2024 - May 2025

- Head T.A. for CS 3510/3511 (Design & Analysis of Algorithms) for both Dr. Gerandy Brito and Prof. Merrick Furst.
- Have helped over 700 students learn algorithms by creating homework assignments & learning resources, and by holding office hours & recitations. I organize the teaching team and the class so the professor only has to focus on lecturing.
- Topics include graph algorithms, dynamic programming, divide & conquer, cryptography, and complexity theory.

### Project Supervisor

July 2023 – Present

- Manage \$80,000 worth of equipment and resources for a gifted highschool's astronomy team and cube-satellite project.
- Logistics, talent/resource organization, perform stakeholder analysis, encourage the students, and provide technical help.
- Our project won the 2023 NCSSS Innovative STEM Student Program of the Year Award.

# PROJECTS

### Frame

Swift UI, React, Python, Flask, AWS SageMaker, Heroku

- MacOS app that replaces inefficient research tools by integrating writing and search into a single view.
- Used retrieval-augmented generation to generate relevant search queries and retrieve context-aware search results based on the user's notes, sources, and current writing.
- Runs a low-power local model made by converting BERT into a CoreML model and adding the embeddings into FAISS.
- Built a responsive user-interface using SwiftUI with embedded React.js, which communicates with a Flask backend.

## SKILLS

Languages: Python, JavaScript, Swift, Java, Rust, Zig, C, CUDA, Wolfram Language

Data: TensorFlow, PyTorch, NumPy, Pandas, scikitlearn, Seaborn, PyDeck, PowerBI, ApacheSpark, MySQL

Cloud: AWS Lambda, EC2, SageMaker, Heroku

Tools: Git, GitHub, Docker, ROS2, Linux, Unix, Mathematica, Postman

Conceptual: Scrum, Object-Oriented Design, Data Structures, Algorithms, Machine Learning, Mathematics