

# MASON CHOI

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## EDUCATION

### University of Massachusetts Amherst

Amherst, MA

Bachelors of Science (Dual Degree) in Computer Science and Mathematics, GPA: 3.94

Graduating May 2025

Skills: Python, Java, JavaScript, Linux, SQL, Data Processing, Advanced Statistics, Linear Algebra, Numerical Analysis

## EXPERIENCE

### Lead Software Engineer

April 2024 – Present

AlphaSeekerAI

Weston, MA

- Optimizing company GCP servers to handle 50K+ daily security streams, reducing latency by 40%
- Deploying forecasting models achieving 68% accuracy in predicting trends from historical data

### Head of Quantitative Finance

June 2024 – Present

Minutemen Alternative Investment Fund

Amherst, MA

- Overseeing 4 quant teams through the development of high-frequency trading algorithms across 3 asset classes

Quantitative Researcher

Feb 2024 - June 2024

- Led options trading team, designing gamma scalping algorithms generating 45% annualized ROI

### Data Engineer

June 2023 – April 2024

Atlantic Prime Estates LLC

Winchester, MA

- Built data pipelines to process 5K+ properties daily, reducing fetch time from AWS MySQL by 20%
- Optimized property valuation accuracy by 15% through regression and time-series model comparisons

### Software Engineer

March 2022 – June 2023

Solve Advisors Inc.

New York, NY

- Automated bond and loan pricing in AWS EC2, reducing manual hours by 70% across 6 financial products
- Developed SEC BDC parser in Python with the AI/ML team, saving 848 hours per year

### Data Engineer

September 2021 – March 2022

Advantage Data Inc.

Boston, MA

- Deployed ETL pipelines into Google BigQuery, increasing data processing speed by 20%
- Built MySQL data integration scripts, achieving 25% faster data migration and transformation rates

## PROJECTS

Text2Notes | Python, Flask, NLP, OpenAI, PostgreSQL

Dec 2022 – May 2023

- Automated tokenization and normalization of user text, processing 450+ queries daily
- Integrated OpenAI APIs for real-time summaries, attracting over 100 daily users

Files | Python, JavaScript, Flask, AWS S3, Google OAuth, Stripe, MySQL, SQLAlchemy

March 2022 – April 2023

- Achieved 250+ active users and 200+ GB data on AWS S3, reducing data retrieval times by 3% vs Google Drive
- Integrated secure user account management, processing 65+ transactions securely via Stripe

Anchor-AI | Python, JavaScript, TensorFlow, Django, MySQL, AWS S3, AWS EC2

May 2021 – October 2021

- Trained regression models using TensorFlow on 1M+ historical data points, achieving 87% model accuracy
- Set up AWS EC2 instance-accelerated training with S3 for data storage, reducing short term compute costs by 20%

## RESEARCH

### VITON Virtual Try-On Network

June 2024 – Present

- Collaborating with researchers at the Korea Institute of Advanced Science and Technology (KAIST)
- Designed and prototyped a virtual try-on solution aimed at commercial retail applications
- Enhancing online fashion personalization and user engagement through innovative technology

### Gamma Scalping Algorithm

March 2024 – May 2024

- Led development of a delta hedging algorithm focusing on option volatility and momentum
- Worked closely with a team of quantitative traders and researchers to refine trading strategies
- Achieved optimized trading performance with measurable returns