# **Christopher Martinez**

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**EDUCATION** 

### **Georgia Institute of Technology**

Atlanta, GA

Master of Science in Computer Science

Expected Dec 2026

Coursework: Operating Systems, Machine Learning, ML for Trading, Game Artificial Intelligence, Computer Networks

**CUNY Hunter College** 

New York, NY

Bachelor of Arts in Computer Science

Aug 2023

Coursework: Software Engineering, Web Development, Database Management, Data Structures & Algorithms

### **EXPERIENCE**

Two Sigma

New York, NY

### **Software Engineering Mentee**

Jul 2021 – Aug 2021

- Contributed to **pip**, the open-source Python package manager, through GitHub pull requests and code reviews, fixing uninstall issues and refactoring code to improve reliability.
- Created a **command line (CLI) tool** to map installed source files to origin packages, improving file traceability for dependency issues, and presented a demo to an engineering panel.

### **Varsity Tutors | Freelance**

New York, NY

# **Computer Science Tutor**

Jun 2025 – Present

• Mentor students from elementary school through university in Python, Object Oriented Programming (OOP), data structures, and algorithms using personalized lessons, pair programming, and code reviews.

# **PROJECTS**

### **MLB Umpire-Batter Analytics API**

<u>GitHub</u>

Tech Stack: Python, FastAPI, Pandas, NumPy, AWS (Elastic Beanstalk, S3), Parquet

- Built a data pipeline that processed **10M+ MLB Statcast pitches** into partitioned Parquet files stored in Amazon S3, integrated player history snapshots, and handled missing values from MLB StatsAPI, GUMBO, and Baseball Savant.
- Created **Veteran Presence (VP)**, a tunable 0-100 metric that quantifies a batter's reputation based on service time, career plate appearances, batting average, hits, RBIs, Wins Above Replacement (WAR), All-Star totals, and awards.
- Containerized and deployed a **FastAPI service** on **AWS Elastic Beanstalk** that serves metrics for individual players and full-season players sets, enabling users to create scouting dashboards, analytics pipelines, and bulk datasets.

#### **Real-Time Multiplayer Drawing Game**

GitHub

Tech Stack: JavaScript, React, Node.js, Express.js, Socket.IO, MongoDB, HTML Canvas

- Built a **full-stack multiplayer** drawing and guessing game over **WebSockets** that streams HTML Canvas brush strokes, chat, guesses, and round timers, and updates scores in real time across all clients.
- Implemented **role-based permissions** and **turn logic**: only the active drawer can emit canvas strokes, guessers are restricted to chat, the host starts rounds and sets timers, and server-side checks prevent multiple drawers.
- Facilitated **biweekly meetings** with two engineers to track team progress and align project milestones with deadlines while resolving merge conflicts and conducting code reviews.

#### **TECHNICAL SKILLS**

- Programming Languages: Python, SQL, C/C++, C#, JavaScript, HTML/CSS
- Frameworks and Libraries: FastAPI, Pandas, NumPy, React, Express.js, Socket.IO, Node.js, Django, Firebase
- Data and Storage: MongoDB, PostgreSQL, Parquet
- Tools and Practices: Agile, OOP, SDLC, REST API design, Docker, AWS (Elastic Beanstalk, S3), Linux