

Nelson Ting

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EDUCATION

New York University, Tandon School of Engineering

New York City, New York

B.S in Computer Science : Minor in Mathematics

Expected May 2028

Relevant Coursework: Introduction To Programming, Data Structures, Object Oriented Programming, Introduction to Databases, Computer Architecture & Organization, Calculus I, Calculus II, Discrete Mathematics, Statistics & Probability

PROJECTS

TradeSafe *Python, S3, Snowflake, dbt, Airflow, Kafka, Flask, PostgreSQL*

June 2026-July 2026

- Developed a full stack investment platform enabling user account logins, simulated stock trading and real-time portfolio balance updates backed by a custom Python ELT pipeline and Snowflake data warehousing.
- Orchestrated a nightly Apache Airflow DAG to extract daily market data for the S&P 500 tickers using Massive's RestAPI into AWS S3 data lake enabling replayable loads independent of the source.
- Loaded Semi-structured JSON from AWS S3 to Snowflake through external stages then transformed raw data into analytics-ready models using dbt.
- Implemented backend user account and trade logic in Flask, using a Kafka streaming pipeline to poll near-live prices for user-held tickers and accurately updating user account data in PostgreSQL on every executed trade with a normalized (3NF) relational schema.

TandonGeoguessr *Python, Flask, MySQL, HTML, CSS*

October 2025-December 2025

- Developed a GeoGuessr-style full-stack web application featuring school-specific locations supporting multi-user gameplay and real-time updates.
- Designed and implemented a MySQL database with a 10-table normalized (3NF) relational schema to manage user accounts, game results, lobbies, leaderboards, and photographs.
- Implemented backend logic in Flask to manage session state, compute scores, process account operations, execute SQL queries and enforce cascading foreign key constraints.
- Built responsive frontend interfaces using HTML and integrated them with Flask to dynamically render website content.

OnTime *Python, TypeScript, React Native, PostgreSQL, Websocket, FastAPI*

August 2026-September 2026

- Developed a full-stack mobile application using React Native that combines live MTA GTFS-realtime data with historical delay patterns to estimate and display subway arrival times.
- Designed a normalized (3NF) PostgreSQL schema to persist computed delay observations over time, enabling historical delay tracking for each route and stop
- Built an asynchronous FastAPI backend that continuously polls MTA's live GTFS-realtime feed and serves current and historical delay data through REST endpoints
- Implemented WebSocket connections to push real-time delay updates to the React Native client, improving arrival-time accuracy for users

TECHNICAL SKILLS

Programming: Python, C, C++, Java, SQL, JavaScript, TypeScript, HTML, CSS

Data/Cloud: Snowflake, AWS S3, PostgreSQL, MySQL, Kafka, Airflow, dbt, PySpark

Frameworks/Libraries: FastAPI, Flask, React Native, Pandas, NumPy, OpenCV

Developer Tools: VSCode, Tableau, Git, Excel

ADDITIONAL INFORMATION

Languages: Conversational with Mandarin and Cantonese, Fluent in English

Interest & Hobbies: Chess, Basketball, Running