

# Hanik Sator

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## EDUCATION

### DePaul University

Chicago, IL

Bachelor of Science in Computer Science, GPA: 4.0

Dec 2025

- Dean's List (7 consecutive quarters, 2023-2025)

## EXPERIENCE

### Software Engineering Intern

Mar 2025 – Jun 2025

Aubot

Remote

- Developed and tested interactive coding exercises in Java and Python, implementing core logic for algorithms such as binary search trees, AVL trees, and threaded binary trees.
- Created debugging and correction tasks by injecting targeted faults and writing automated validators to test student submissions.
- Collaborated on refactoring and reviewing code to improve accessibility, reliability, and the learning experience.
- Improved exercise performance and reliability by adding automated unit tests and benchmarks to identify edge-case failures.

### Bakery Team Member

Sept 2022 – Present

Whole Foods Market

Chicago, IL

- Demonstrated strong teamwork, communication, and reliability in a fast-paced environment while coordinating daily operations and supporting customer needs.

## PROJECTS

### FreshTrack Website | Python, Django, PostgreSQL, Docker

- Built a household inventory system with real-time tracking for perishable and non-perishable items.
- Implemented forecasting logic for depletion prediction and automated low-stock alerts.
- Added collaborative features including shared lists, drag-and-drop containers, and auto-updating shopping lists.
- Added unit tests and integration tests for inventory and forecasting features, improving reliability and preventing regression during updates.

### Stock Exchange Simulator | Java, OOP, Design Patterns

- Developed a stock exchange simulation with real-time order book operations and efficient order-matching algorithms.
- Applied Facade, Factory, and Strategy patterns for modular design and extensible architecture.
- Utilized TreeMap for efficient price sorting and matching, ensuring quick access and sorted trades.
- Integrated logging and diagnostic tooling to analyze performance bottlenecks during high-frequency trading simulations.

### Spotify Playlist Shuffler | Python, Spotify, REST API

- Created a Python app using Spotify's API with OAuth 2.0 to shuffle, merge, and create playlists.
- Developed a shuffling algorithm leveraging Python's random module to reorder tracks and create new playlists efficiently.
- Added a feature to merge multiple playlists into a single shuffled playlist, enhancing its utility for users with diverse music preferences.

### Remote-Controlled Car | Python, Raspberry Pi, Hardware Sensors

- Designed a remote-controlled car using a Raspberry Pi, integrating motors, LEDs, and sensors.
- Developed Python control algorithms, enhancing motor speed and direction management, achieving an improvement in responsiveness during testing.
- Incorporated real-time feedback mechanisms using LEDs and a buzzer for status indicators.
- Utilized GPIOZero for hardware interaction, ensuring responsive and reliable control.

## TECHNICAL SKILLS

**Languages:** Java, Python, C, C++, Scala, SQL, HTML/CSS, JavaScript

**Frameworks & Tools:** Django, Spring Boot, Flask, Docker, Git/GitHub, Linux, JUnit

**Databases:** Oracle SQL, PostgreSQL, SQLite

**Libraries:** pandas, NumPy, Matplotlib, JavaFX, Bootstrap