

## **Aaron Tawil** - Third-Year CS & Physics Student

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Third-year B.Sc. student in **Computer Science** and Physics (Quantum Computing Program) at Tel Aviv University.

Motivated to join a **Software Engineering** team where I can apply and expand my technical skills, gain industry experience, and contribute to innovative projects. Strong analytical mindset with a foundation in problem-solving, math, and computational thinking.

### Education

**2023 – 2027 | B.Sc. CS and Physics Tel Aviv University** (expected graduation Sept 2027)

**GPA: CS: 91 | Physics: 87**

Relevant Courses: Intro to CS (Python) – 93 | Data Structures – 96 |  
Software 1 (Java) – 96 | Algorithms – In Progress

### Technical Skills:

**Programming Languages:** Python | Java | Kotlin | C.

**Tools & Platforms:** Git | SQL | Linux | Docker | GCP (Cloud Run, Schedule, Storage) | GenAI tools (Gemini CLI, codex, MCP's etc.)

### Projects

**TAU Grade Notifier - Serverless grade alerts;** Repo: [Grade Notifier](#)

- **Purpose:** Monitors TAU's student portal and pushes Telegram alerts the moment a grade (or exam notebook availability) is published.
- **Highlights:** Headless login + scrape with Playwright; JSON diffing with a persisted cache in Google Cloud Storage (prevents duplicate pings); Dockerized on Cloud Run and triggered by Cloud Scheduler (for example, every 10 minutes, Sun-Thu).
- **Technologies:** Python, Playwright, Telegram Bot API, Docker, Google Cloud Run, Cloud Scheduler, Cloud Storage.

**SymNMF Clustering – C-Accelerated ML Algorithm (University);** Repo: [SymNMF-Cluster](#)

- **Purpose:** High-performance implementation of Symmetric Non-negative Matrix Factorization (SymNMF) for clustering, with a clean Python CLI and C core for speed.
- **Technologies:** C, Python, NumPy, scikit-learn, CPython API, Make/GCC.

**Data Structures Projects (University);** Repos: [AVLTree](#) | [Fibonacci Heap](#)

- AVL Tree (Python): self-balancing BST with support for insertion, deletion, search, and advanced operations like split/join
- Fibonacci Heap (Java): developed a heap supporting efficient merges and key updates; applied to graph algorithms such as Dijkstra's.

**Android App for Inventory Management with Barcode Scanner (2020);** Repo: [Barcode Scan](#)

- Developed an Android app in Kotlin to retrieve item details (price, quantity, etc.) via barcode scanning or manual search.
- Boosted employee productivity (~20% faster in receiving new goods).
- Integrated with Firebase for cloud sync and Room for local data storage.

### Work Experience

**2018 – 2021 | Purchasing and Inventory Store Manager | Super Home (Jerusalem)**

- Managed purchasing and inventory using ERP systems: supplier orders, pricing, and stock tracking.
- Developed an Android inventory management app (see Projects).
- Supported creation and maintenance of an e-commerce platform (Shopify based).

### Volunteer

English Tutor and Mentor

Hillel Organization | Tel Aviv

- Volunteered to teach and mentor young adults who have left the ultra-Orthodox community, focusing on English language skills.

Soft Skills: Self-driven learner with excellent adaptability, meticulous attention to detail, strong problem-solving capabilities, and highly motivated to achieve and excel.

Languages: Hebrew – Native | English – Full Professional Proficiency | Spanish – Native