

Eliyahu Mizrahi

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EDUCATION

Brooklyn College

BS, in Computer Science, GPA: 4.0/4.0

Varsity Badminton (Division II), Computer Science Club, Hillel Club

Expected May 2028

Brooklyn, NY

PROJECTS

XPStrength - Gamified Fitness Platform (Sep 2024 - Present) · [XPStrength.com](#)

- Built a full-stack mobile fitness app featuring an XP-based progression system, real-time workout tracking, social friend feed, weekly leaderboards, and a visual muscle-recovery heatmap.
- Currently running an IRB-approved human subjects study evaluating the effectiveness of gamification on workout adherence and outcomes in active users.

Hormuz Watch - Philly 250 Maritime Defense Hackathon (Mar 2026, 48hr)

- Built an edge-first maritime threat detection system for the Strait of Hormuz on under \$450 of hardware (Raspberry Pi 5, ESP32 mesh, Jetson Orin Nano) with sub-15ms detection latency, zero cloud dependency, and an AES-256-GCM encrypted mesh network with constant-rate cover traffic.
- Trained an Isolation Forest + PyTorch Autoencoder ensemble on 18.8M real AIS reports (NOAA MarineCadastre); achieved 100% recall replaying 5 historical Hormuz incidents (Stena Impero, Mercer Street, Fujairah) at 137 reports/sec.
- Integrated local LLM (Ollama + Phi-3 Mini on Jetson Orin Nano) with RAG over 151 intelligence documents for contextual alert triage, under 2s response time.

Simulare - AI Physics Learning Platform (HackRU Fall 2025, 24hr)

- Built an AI-powered physics study platform that converts textbook content into interactive, on-demand simulations, structured explanations, and voice-based tutoring.
- Architected a cross-platform React Native + Expo app with a custom navigation stack preserving state across tabs; integrated Snowflake-backed RAG, Gemini for simulation and content generation, and ElevenLabs voice.

WORK EXPERIENCE

Platinum Inc. - Minecraft Server Network

May 2020 - Oct 2020

Founder & Lead Developer

Brooklyn, NY

- Grew a profitable gaming community of 1,000+ active players and Discord members at age 13 through self-run marketing, content updates, and community management.
- Deployed and maintained the server's AWS infrastructure (EC2, networking, backups) with 99.9% uptime under peak concurrent load.
- Launched a monetized web storefront selling in-game ranks and crate keys, integrating automated payment processing and in-game fulfillment to generate consistent revenue.

HONORS & AWARDS

- **2nd Place Nationally, National Cyber League Fall 2025** - Perfect 3,000-point score, 7,800+ competitors; Monmouth Cyber Hawks ranked #2 nationally across 800+ schools (featured in Brooklyn College News).
- **26th Globally, PicoCTF 2026 (CMU)** - Perfect 14,500 team score of 8,130 teams; top contributor, 6,700 pts.
- **Best UI/UX Design & [IDEA] Best Entrepreneurial Hack**, HackRU Fall 2025.

SKILLS

Languages: Python, JavaScript, TypeScript, Java, SQL, HTML/CSS **Frontend/Mobile:** React, React Native, Expo, Tailwind, Redux, shadcn/ui **Backend/Data:** Node.js, Express, FastAPI, Flask, WebSockets, MongoDB, MySQL, Firebase, Snowflake **ML/AI:** PyTorch, TensorFlow, scikit-learn, Pandas, NumPy, ONNX, RAG, LLM integration (OpenAI, Gemini, Ollama, ElevenLabs) **Cybersecurity:** Cryptography, web exploitation, forensics, reverse engineering, binary exploitation, CTF, AES-256-GCM **Cloud/Embedded:** AWS (EC2), Docker, Heroku, Vercel, GitHub, Raspberry Pi, ESP32, Jetson Orin Nano