Adir Barak

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Dedicated and highly motivated computer science student seeking a student position or an internship to apply and expand my knowledge and programming skills, collaborate on fascinating innovative projects, and contribute to a mission-driven organization.

Education

Bachelor of Science in Computer Science at **The Hebrew University of Jerusalem**.
Current GPA: 86.82. Expected Graduation: Oct, 2025.

Relevant Coursework: Introduction to Computer Science (Python), Programming Workshop in C & C++, Data Structures, Linear Algebra (1 & 2).

Programming Skills: Python, C & C++ through university coursework and self-taught web development skills, including HTML, TailwindCSS, React and Next.js, and hands-on experience with Git, MongoDB, and Firebase.

Projects

Moshal Social [React | MongoDB | Node.js |Express.js | Firebase Storage]

- Designed a dynamic and interactive web platform that allows the Moshal Program scholarship recipients, alumni, and staff to mingle, interact and help each other.
- Developed a user-friendly interface (w/ React), and a reliable backend (w/ Express, Mongoose & Firebase Storage).
- Implemented secure user auth (w/ JWT), data caching for performance and searching capabilities for convenience.
- Turned Moshal Social into an open–source project, offering both current students and alumni opportunities to gain practical experience, experiment with web-dev tools, and give back to the Moshal Program's community.

Medical Innovation Hackathon [Next.js | Material-UI (MUI)]

- Prototyped an A.I assistant that streamlines the generation of discharge letters from the E.R, significantly accelerating the process, improving patients comprehension, and minimizing the staff's errors potential.
- Customized a Next.js template to align with the prototype's requirements by modifying the UI with MUI, and integrating logic and mock functionality with React to showcase the concept in action.
- Led a team consisting of tech and medical students to develop an innovative solution for healthcare challenges.

Boggle [Python | Tkinter | Pytest]

- Built a variation of the board game 'Boggle', focusing on implementing OOP paradigms with Python and Tkinter.
- Followed a Test Driver Development (TDD) approach, using automated & manual unit-testing to ensure reliability.
- Crafted custom data structures & algorithms to maximize efficiency, resulting in a smooth player experience.
- Enhanced player experience even further with sound effects, visual cues, and a special "Party" game mode.

Pic-2-ASCII [C / C++ | stb-headers]

- Constructed a program to seamlessly accept images in popular formats (png, jpg, or bmp), and output an ASCII-art rendition of them.
- Leveraged the powerful stb-headers to handle the intricate process of reading images, focusing on simplicity.

Languages: Highly proficient in English with Hebrew as my native language.

Military Service: Combat Medic in the Armored Corps.