# Jacob Ishak-Boushaki

## Student of Software Engineering at the University of Arizona

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## Technical Skills

**C/C++, Java, Verilog, Python, Assembly**

FPGA programming, Arduino, ESP32, UML

Git/Github, VSCode, Vivado, MS Office Suite, including Teams & Excel

Soldering, PrusaSlicer, Ultimaker Cura

American Sign Language ●●○○

## Extracurriculars / Leadership

Vice president of UA IEEE Student Branch

Vice president of Software Engineering Wildcats club (SEW)

Team Lead for Texas Instruments PCB project

Chair of SEW Hackathon Committee

Member of Arizona Autonomous Vehicles Club

## Employment History

### The University of Arizona

**Co-Chair of Hack Arizona,** 2023 - Present

Planned, organized, and executed the return of the university's only student-led Hackathon. Co-Managed a team of 10+, raised and managed a budget of $1000, solicited sponsorships, invited presenters and judges, and presented a workshop to students about the Pygame library. In 2024, Hack Arizona became an official U of A signature event, and hired me as co-chair. Moving forward, we hope to make Hack Arizona the premier hackathon event in Southern Arizona, inviting companies to interact with students, offering multiple competitive tracks, and making the event a fun and educational experience the students will never forget.

## Projects

**Texas Instruments x IEEE PCB project, Team lead** – Working with mentors from TI, I led a team to design a Printed Circuit Board in Altium, solder, test the finished boards using a DAQ. The PCB is an educational device commissioned by Dr. Hetherington from the College of ECE to teach students about the different kinds of diodes, without having to manually swap parts out of a breadboard. The project was a success, and we completed soldering the board prototype this past summer. To continue the project, we will author a post-project report about our experiences, and this semester, we will design a new PCB, collaborating with the K7UAZ radio club to create a radio receiver.

**Multimeter, Personal Project** – Using the Arduino IDE, programmed an Elegoo Uno to measure Voltage, Resistance, Current, and Capacitance using 4 circuits implemented on a breadboard. The project was a success, and every functionality works as intended. In the future, I would like to design and solder a PCB specifically for these circuits, and design and 3D print a case for the multimeter.

**Alien Invasion Game, Semester project (Class 2nd place)** – Designed, tested, and presented a video game using VScode in my Software Engineering 101 class. The project won second place, partly due to my attention to detail, overall aesthetic vision, and inclusion of extra gameplay features, such as a time-recharging battery for the spaceship.

References available upon request