

# AHMAD ABUBAKER

Portfolio: [AhmadAb.com](https://AhmadAb.com)  
Palo Alto | [Ahmad.ab.96@gmail.com](mailto:Ahmad.ab.96@gmail.com)

## PROFESSIONAL EXPERIENCE

**DFM & Fabrication:** Designed for and fabricated using CNC machining, injection molding, casting, welding, sheet metal forming, 3D printing, and laser cutting

**CAD & CAM:** Created 3D models, assemblies, technical drawings, and CAM workflows in Fusion 360

**Simulation:** Performed FEA stress and thermal analyses, moldflow simulations, and toolpath simulations to validate designs, predict defects, and ensure manufacturability

**Electronics:** Designed PCBs, integrated sensors, and prototyped embedded systems using microcontrollers

**Programming:** Developed firmware for microcontrollers and scripts for data visualization and interactive prototypes in Python, C++, Java, and Processing

**Design Research & Strategy:** Led design processes from stakeholder interviews and systems analysis through synthesis, concept development, and validation

## EDUCATION

**Stanford University**

September 2023 - September 2025

M.S. Design - Physical Form + Manufacturing

**Jordan University of Science and Technology**

January 2015 - December 2019

B.S.E Electrical and Communications Engineering

## PROFESSIONAL EXPERIENCE

**Stanford Product Realization Lab (PRL)**

**Course Assistant (CA)**

September 2023 - Present

- Coached students in successive prototyping and rigorous experimentation with processes and materials.
- Trained students on: CNC, welding, milling, turning, casting, woodworking, 3D printing, laser cutting, and more fabrication workflows.
- Reviewed student's CAD and CAM and provided DFM feedback.
- Helped researchers design and manufacture experiment hardware builds.

**Canaan IoT - Coffee Tech Startup**

**Co-founder and Head of Design**

January 2021 - September 2023

- Led PCB and enclosure design for IoT sensor node prototypes.
- Setup proof-of-concepts experiments in more than 10 coffee shops and roasteries
- Synthesized case studies for potential customers and investors.
- Interviewed coffee shop baristas' and centered their needs and workflows in our design approach.

**The International Rescue Committee (IRC)**

**Design Consultant**

June 2021 - June 2023

- Designed, prototyped, and scaled an Early Childhood Development intervention reaching 35,000 caregivers and 50,000 children and is projected to reach 150,000 new children each year.
- Developed and helped deploy Playful Learning Areas including for healthcare clinics' waiting rooms in more than 140 locations in Jordan, Syria, Iraq, and Lebanon.
- Served as a liaison between stakeholders: parents, healthcare workers, government officials, and designers.

**Naqsh Science - STEM Education Startup**

**Founding Director**

July 2017 - January 2021

- Recruited and trained 35+ STEM majors to create Arabic-language science content and live shows.
- Led our outreach, fundraising, grant writing, and communications effort.