HALA HABIB

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EDUCATION

Princeton University, USA June 2025 – May 2029
B.S.E. in Electrical and Computer Engineering (GPA 3.309), Attended the Freshman Scholars Institute Summer Program.
Current Course Work (Fall 2026): [ECE308: Electronic and Photonic Devices], [ECE 298: Sophomore Independent Work], [CHM201: General Chemistry I], [NES217: Board Games in the Near East and Beyond].
Clubs: Robotics Club member, Syrian Student Association secretary, Raqs Bellydance production member.

Al Ghareeb High School, Syria Sep 2021 – Jul 2024
Syrian Baccalaureate, Scientific Branch, High School Average 94.85%.

RESEARCH EXPERIENCE

Kahn Lab, Undergraduate Researcher, Princeton University, ECE Aug 2026 - Present
- Research Phase Evolution and Optoelectronic Behavior of Metal Halide Perovskite Semiconductors.
- Investigate how amine-derivative additives drive phase evolution, and how it affects their optoelectrical properties.
- Fabricate pure 2D and hybrid 2D/3D perovskite films to study structure–property relationships.
- Perform photoluminescence (PL) measurements to characterize the optical behavior of the films.
- Measure conductivity across varying temperatures and voltages using a double ultra-high-vacuum (UHV) system, controlled with LabVIEW; plot and analyze in MATLAB.

Cleanroom Lab, ECE308: Electronic and Photonic Devices, Princeton University Fall 2026
- Fabricated a silicon MOSFET and a silicon solar cell in a cleanroom, executing the full multi-step process flow.
- Performed photolithography (spin coating, exposure, development) and wet and dry etching under cleanroom protocols.
- Electrically tested finished devices and related their performance back to individual processing steps.

PUBLICATIONS

- Devin Zhang, **Hala Habib**, Su Wang, Shuhao Zeng, Mung Chiang, and H. Vincent Poor, “Fast Effective RF Fingerprinting on Commoditized Mass-Market MCUs,” submitted to *IEEE International Conference on Communications (ICC)*, 2027.

WORK & EXTRACURRICULAR EXPERIENCE

Princeton Audio/Video services, Student Employee Feb 2026 - Present
- Support the Princeton Community's first contact for AV needs (classes and events).
- Responsible for user support, event setup and troubleshooting, equipment training and maintenance (computers, cameras, microphones, and control panels).
- Develop customer service, technical support, and teamwork skills in a fast-paced campus environment.

Megasoft International Company for IT, Computer Technician Intern Sep 2024 - Dec 2024
- Studied computer system architecture, including assembly, configuration, and troubleshooting of hardware components and software systems.
- Diagnosed and repaired ~20 devices, applied methodical problem-solving to resolve hardware and software issues, ensured optimal system performance.
- Developed client interaction skills by explaining technical solutions clearly, managing expectations, and ensuring customer satisfaction.
- Collaborated with 5 engineers to research and optimize low-power device performance.
- Adhered to the A+ CompTIA curriculum, gained knowledge of computer hardware, operating systems, networking, and cybersecurity fundamentals.

Uber Technologies Inc, Work Experience Intern with Delta Careers June 2024 - Aug 2024
- Ideated, evaluated, and designed a version of Uber’s ridesharing app for teens with a team of 3 and a cohort of 22 international students.
- Designed software and hardware features for Uber teens app. Pitched our case study (Points system, Themes system, Safety system) to an Uber representative. Conducted qualitative interviews. Worked on Problem Statements, JTBD statements, HMW statements, and Pain Points.
- Obtained virtual communication skills, and teamwork across multiple time zones and cultures. Adapted to asynchronous work and improved proactivity with educational module sessions and mentors.
- Mastered UI/UX design essentials: user flow, user journey, user-friendly designs, intuitive designs, decreasing clickoff rate, double diamond design process.

LEADERSHIP AND OTHER EXTRACURRICULAR INVOLVEMENT

- College application mentor: Syrian Youth Empowerment NGO volunteer. Serve as a college application mentor for one Syrian student. Support with essays, extracurricular activities, decision making, and international student issues.
- Princeton Reunions Tech Crew: Student employee for Princeton Reunions 2026. Resolved tech problems with registration and scanning across campus throughout the full duration.
- Dialogue and Difference in Action: Student orientation leader for the class of 2030. Facilitate critical dialogue focused on identity, power, privilege, and difference. Help develop competencies and perspectives for inclusion.
- Mauj sexual & menstrual wellness brand by and for Arab women: Served as an Ambassador for Syria. Guided and managed an app focused on Arab women's sexual & menstrual health. Facilitated safe discussions, educated people about body image & sexuality.
- Mathey College Council Academics Committee: Member of my residential college academic council. Plan and execute events to bring relevant academic, career, and internship information to students.
- Volunteering: Organized 16 free tech workshops across Syria for 700+ people. Coordinated agendas, secured sponsorships, recruited attendees and volunteers.
- Musician (Pianist & Guitarist) at Uground Music House Record Label: Played with a band, organized a concert at our local cultural center, collaborated with a friend on original music.

ADDITIONAL INFORMATION

- Languages: Fluent in English and Arabic. Intermediate in French.
- Fabrication & Characterization: Cleanroom processing, photolithography, spin coating, wet and dry etching, thin-film fabrication, photoluminescence (PL), conductivity and I-V testing, UHV systems, LabVIEW.
- Technical Skills: MATLAB, LabVIEW, C++, Java, Overleaf, Adobe Photoshop, Figma, Scratch, Slack, G Suite, Microsoft Office.
- Interests: Music, Gaming, Design, Robotics, Soccer, Chess, Dragons.