

Hamza Al Halabi

513-266-7451 | alhalaha@mail.uc.edu | Cincinnati, OH | linkedin.com/in/alhalabihamza

EDUCATION

Bachelor of Science in Biomedical Engineering | University of Cincinnati

Graduation: 2028

LEADERSHIP

Project Lead | EnableUC, Cincinnati

August 2025 – PRESENT

- Directed a research team developing closed-loop recycling methods for 3D printing waste, spearheading the initial design and prototyping of a custom refilamentation machine.
- Established a research collaboration with external laboratories, including RHEOhio, to optimize the chemical processes required for successful polymer recycling and material reuse.
- Managed project timelines and milestones for a material-recycling initiative, optimizing waste-reduction protocols for 3D printing operations.

WORK EXPERIENCE

Resident Advisor | University of Cincinnati RED, Cincinnati

August 2025 – PRESENT

- Supervise residential community of 60 students, cultivating a safe, inclusive, and supportive living environment through proactive engagement and policy enforcement.
- Plan strategic monthly community engagement events, engaging over 100 students in academic and social initiatives supporting first-year student experience.
- Deliver timely conflict resolution and resource referrals, serving as a first point of contact for student concerns and wellness support.
- Conduct regular safety rounds and maintain accurate documentation to uphold university housing standards and ensure resident accountability and safety during emergencies.

Research Student II | Cincinnati Children's Research Foundation, Cincinnati

August 2025 – May 2026

- Streamlined high-resolution mass spectrometry workflows by executing sample preps and runs, implementing process optimizations that slashed laboratory preparation costs by 14% and analysis time by 80%
- Developed novel, adaptive protocols for FLEX V2 single-cell sequencing preparation while utilizing HPC systems and Linux-based software to perform advanced data analysis.
- Authored comprehensive weekly lab reports and delivered data presentations to translate complex technical findings into actionable insights for stakeholders.
- Managed in vivo studies utilizing animal models to assess the efficacy of next-generation gene therapies for Cystic Fibrosis patients

Clinical Research Assistant | interim Translation Research Institute, Qatar

March 2019 – July 2024

- Co-authored 2 high-impact publications (IJMS) by executing standard lab procedures, including bloodwork and PBMC isolation on 50+ endocrine samples, and analyzing Illumina sequencing data.
- Improved onboarding efficiency by training 4 new team members in standard laboratory protocols and genomic data analysis workflows.
- Performed PBMC isolation protocols for longitudinal metabolic health studies, maintaining appropriate records and inventory.

TECHNICAL SKILLS

- **Design & Prototyping:** Solidworks, Fusion 360, NX , FDM & SLA 3D Prototyping , Metalshop, Woodshop
- **Programming & Software:** Python, JavaScript, R, C++ , MATLAB , Linux , KiCAD, LTSpice
- **Laboratory & Regulatory:** IACUC, FDA Protocols , Technical Documentation , Microsoft Suite, Adobe Suite

Searching for Co-op Fall 2026