

Zion Hubbard

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EDUCATION

Tempe, AZ – Biological Sciences Bachelor’s Degree **Expected May 2026**
Arizona State University **Tempe, AZ**

- Grade: 3.72/4

Tempe, AZ – Biology Master’s Degree **Expected May 2027**
Arizona State University **Tempe, AZ**

- Accelerated Master’s program

AFFILIATIONS

School of Life Sciences Undergraduate Research (SOLUR) **January 2024 – Present**
Arizona State University

Western Alliance to Expand Student Opportunities (WAESO) **January 2025 – May 2025**
Arizona State University

Longroad Energy **March 2025 – May 2025**

Biodesign Institute **May 2025 – Present**
Arizona State University

The National Institutes of Health **July 2025 – Present**
Arizona State University

EXPERIENCE

Student, BIO 194 **August 2023 - December 2023**
Arizona State University **Tempe, AZ**

- Conducted biostatistical biology experiments, including gel electrophoresis and gene analysis, documented biology laboratory procedures and improved student participation rates in research experiments.

Researcher, SOLUR **January 2024 - Present**
Arizona State University – School of Life Sciences Undergraduate Research (SOLUR) Program **Tempe, AZ**

- SOLUR Scholar
- Directing biostatistical research focusing on gene mutations within the LCT gene complex found on chromosome 2, leading to lactose intolerance phenotypes under Dr. Holechek
- Directing Honeybee research, understanding their susceptibility and behavior insights with a genetic, evolutionary, and virology background

Learning Assistant **August 2024 - December 2024**
Arizona State University – School of Life Sciences **Tempe, AZ**

- Collaborate with the instructor to co-teach three LIA 101 classes
- Communicated and guided over 50 students through the fundamentals of college

Researcher Mentor **January 2025 – May 2025**
Arizona State University – School of Life Sciences Undergraduate Research (SOLUR) Program **Tempe, AZ**

- Collaboration with SOLUR/WAESO research project, providing guidance through biostatistical and physical laboratory methods and data analysis

BIO 194 ATA

January 2025 -May 2025

Arizona State University – School of Life Sciences Undergraduate Research (SOLUR) Program **Tempe, AZ**

- Help in class with the assigned group through a guided research project using the NIH's *All of US* database
- Help in the lab to set up laboratory experiments for DNA extraction using saliva-based samples, using PCR and gel electrophoresis to genotype individuals.

Researcher Intern

March 2025 – May 2025

Longroad Energy

Tempe, AZ

- Collaboration with the School of Life Sciences Undergraduate Research (SOLUR) Program and Longroad Energy, focusing on stabilizing soil and preserving biocrust in areas where solar panels are installed

Undergraduate Lab Assistant

May 2025 - Present

Arizona State University – Biodesign Institute

Tempe, AZ

- Assistance in autoclaving and feeding of *Daphnia* with different algae concentrations.

Ambassador, *All of Us*

July 2025 - Present

The National Institutes of Health – Arizona State University

Tempe, AZ

- The NIH's All of Us program brings in people with various genetic backgrounds to create a medical database that dedicates unique applications to modern medicine and science. The main mission of the All of Us ambassadors is to increase the participant count of the database while spreading positive insights for the benefit of All of Us.

BIO 194 IA

August 2025 - Present

Arizona State University – School of Life Sciences Undergraduate Research (SOLUR) Program **Tempe, AZ**

- Lead BIO 194 IA, guiding instructional team.
- Set up laboratory experiments for DNA extraction using saliva-based samples, using PCR and gel electrophoresis to genotype individuals.
- Encourage students' passion to pursue their research careers

BIO 394 ATA

August 2025 - Present

Arizona State University – Barrett the Honors College

Tempe, AZ

- Set up laboratory experiments for DNA extraction using saliva-based samples, using PCR and gel electrophoresis to genotype individuals.
- Encourage students' passion for pursuing research careers.
- Teaching each student the fundamentals of career readiness.

BIO 451/551 ATA

August 2025 - Present

Arizona State University – School of Life Sciences Undergraduate Research (SOLUR) Program **Tempe, AZ**

- Set up laboratory experiments for cell culture research.
- Guide each student through the fundamental components of cell culture research.
- Encourage students' passion to pursue their research careers

Lead Officer, BioLaunch at ASU

August 2025 – Present

Arizona State University – School of Life Sciences

Tempe, AZ

- BioLaunch at ASU is a student-led organization dedicated to empowering students interested in biotechnology entrepreneurship and careers beyond academia.

Ambassador, NIH's *All of Us*
National Institute of Health (NIH)

August 2025 - Present
Tempe, AZ

- The main mission of the *All of Us* ambassadors is to increase the participant count of the database while spreading positive insights for the benefit of *All of Us*.

PROJECTS

SOLUR/Master Thesis - Arizona State University

May 2025 -Present
Tempe, AZ

- Interspecies relationship between honeybees and the parasitic Varroa mites, focusing on the stimulation of hygienic behavior traits through odorant cues to reduce the honeybee's susceptibility from transmitted RNA viruses from the mites through gene modulation.

How Genetics Determines Lactose Intolerance Variants in the World

January 2025 -May 2025

SOLUR/WAESO – Genetic Analysis - Arizona State University

Tempe, AZ

- Collect data using the NIH *All of Us* database for genetic analysis on the polymorphism of the LCT gene

The Role of MCM6 Gene Mutations on the Inheritance of LCT

August 2024 – December 2024

SOLUR - Biostatistical Project - Arizona State University

Tempe, AZ

- Collect data using the NIH All of Us database and export over 7000 participants to be used for biostatistical analysis

LCT variations influence the development of SIBO

January 2024 - May 2024

SOLUR - Biostatistical Project - Arizona State University

Tempe, AZ

- Collect data using the NIH All of Us database and exported over 8000 participants to be measured for biostatistical analysis

LCT Variations and Crohn's Disease

October 2023 - October 2023

SOLUR -Group Project - Arizona State University

Tempe, AZ

- Collect data using the NIH All of Us database and export over 13,000 participants to be used for biostatistical analysis

POSTERS/PRESENTATIONS

SOLUR Symposium

April 26, 2024

Arizona State University - SOLUR

Tempe, AZ

- Presented: *LCT variations influence the development of SIBO*

BioSci Southwest Symposium

November 1, 2024

Arizona State University - SOLUR

Tempe, AZ

- Presented: *The Role of MCM6 Gene Mutations on the Inheritance of LCT*

SOLUR Symposium

April 25, 2025

Arizona State University - SOLUR

Tempe, AZ

- Presented: *How Genetics Determines Lactose Intolerance Variants in the World*

Evolution Biology Symposium

August 15, 2025

Arizona State University - SOLUR

Tempe, AZ

- Presented: *How Genetics Determines Lactose Intolerance Variants in the World*

ASBMB 2026

March 9, 2025

Arizona State University – School of Life Sciences, SOLUR

Washington, D.C.

- Presented: *Mitochondria Lineage Identification and Gene Modulation Measurements of Apis mellifera Reveal Differential Susceptibility to Varroa destructor Induced Gene Expression Changes: Phase One*

PROFESSIONAL ACTIVITES/OUTREACH

Getting a Head Start in STEM

SOLUR–Arizona State University

August 12, 2025

Tempe, AZ

- Presented at a summer program spreading knowledge of the School of Life Sciences Undergraduate Research (SOLUR) program to upcoming Arizona State University students.

Ambassador, Mentee (Undergraduate TA)

Arizona State University- SOLUR

January 23, 2026

Tempe, AZ

- Promoted the Mentee program at a private donor event hosted by the School of Life Sciences at Arizona State University

Research Workbench Outreach – All of Us

National Institute of Health- Arizona State University

February 14 , 2026

Tempe, AZ

- As an ambassador for the *NIH's All of Us Research Program*, I spread awareness and knowledge on the research side of the medical database, recruiting fellow researchers from various research institutes

SKILLS

Laboratory: Genomic Analysis

Laboratory: DNA/RNA Isolation and Purification

Program: Efficient in Microsoft Programs

Program: Brief Knowledge of Code Language R

Program: Efficient in Adobe Programs

Program: Efficient in Canvas Programs

Social: Public speaking

Social: Teaching

Social: Intercommunication

TRAINING

EHS Hazardous Waste Training for Labs

Arizona State University

July 28, 2025

Tempe, AZ

EHS ASU Autoclave Training

Arizona State University

January 10, 2026

Tempe, AZ

EHS ASU Community of Care Training For Employees

Arizona State University

January 10, 2026

Tempe, AZ

FERPA Tutorial for System Access

Arizona State University

August 14, 2026

Tempe, AZ

EHS Bloodborne Pathogens General Awareness

Arizona State University

July28, 2025

Tempe, AZ

EHS Annual Fire Safety and Prevention Training

Arizona State University

May 12, 2025

Tempe, AZ

EHS ASU Biosafety and Biosecurity

Arizona State University

July 28, 2025

Tempe, AZ

ASU Information Security Training

Arizona State University

May 16, 2025

Tempe, AZ

ASU Preventing Discrimination and Harassment
Arizona State University
ASU – Your Duty to Report
Arizona State University

May 12, 2025
Tempe, AZ
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