

UJVESI BLAKAJ

East Lansing, MI | Macomb, MI | (586) 422-5324 | blakajuj@msu.edu

EDUCATION

Michigan State University | East Lansing, MI

Expected May 2028

Bachelor of Science in Biosystems Engineering, Biomedical Concentration

Macomb Mathematics Science Technology Center (MMSTC) | Warren, MI

2020–2024

Advanced Mathematics and Science Program

RESEARCH & ENGINEERING EXPERIENCE

Michigan State University | East Lansing, MI

Spring 2026

Staphylococcus aureus Infection Risk Assessment — BE 230: Engineering Analysis of Biological Systems

- Developed a Stella Professional systems model to simulate *S. aureus* infection progression on healthy and immunocompromised human skin, enabling quantitative comparison of infection outcomes.
- Applied quantitative microbial risk assessment (QMRA) and biological systems modeling to evaluate infection probability, identifying a 7× higher modeled infection risk in the immunocompromised system.
- Analyzed model outputs and biological parameters to compare system responses and translate quantitative results into engineering conclusions.

Macomb Mathematics Science Technology Center (MMSTC) | Warren, MI

2020–2024

Student Researcher

- Designed and completed multiple year-long independent research projects by developing research questions, experimental methods, and testing procedures from initial concept through final analysis.
- Conducted controlled experiments using the scientific method to collect, organize, and analyze quantitative data and develop evidence-based conclusions.
- Presented research methods, data, and conclusions through formal presentations to students, faculty, and community members, translating technical findings for diverse audiences.

FIRST LEGO League — Willow Woods Elementary School

2022–2024

Robotics Mentor

- Mentored students in grades 4–5 in coding, engineering design, problem-solving, and teamwork through hands-on robotics instruction.
- Guided students through iterative robot design, building, programming, testing, and troubleshooting to prepare functional robots for FIRST LEGO League competitions.
- Strengthened student engagement in STEM by facilitating collaborative engineering challenges and encouraging iterative problem-solving.

LEADERSHIP & INVOLVEMENT

Biosystems Engineering Club, Michigan State University

2026–Present

E-Board Member — Social Chair & Social Media Manager

- Coordinate social, wellness, and outreach initiatives to increase engagement and strengthen connections within the Biosystems Engineering student community.
- Manage social media, event promotion, and organizational communications to expand awareness of club activities and encourage student participation.

American Society of Agricultural and Biological Engineers (ASABE) | Member

Women in STEM Club | Member

Albanian American Student Organization | Member

ADDITIONAL EXPERIENCE

Morning Post | East Lansing, MI

September 2026–Present

Hostess

- Manage guest flow, seating, and table rotation during fast-paced shifts while coordinating with front-of-house staff to maintain efficient service.
- Communicate with guests and team members to respond to changing service needs and support organized restaurant operations.

Crave Kitchen & Cocktails | Washington, MI

Seasonal 2026

Hostess

- Managed seating, guest payments, and front-of-house responsibilities during high-volume shifts to support efficient guest service.
- Collaborated with servers and front-of-house staff to maintain organized operations and deliver a positive guest experience.

TECHNICAL SKILLS

Software: MATLAB, Stella Professional, Computer-Aided Design (CAD), Microsoft Office, JavaScript

Engineering & Research: QMRA, biological systems modeling, experimental design, data collection and analysis, scientific research, engineering problem-solving