KAVISH SHAH

+1 (408) 609-7196|kshah77@asu.edu|https://www.linkedin.com/in/shah-kavish

EDUCATION

Arizona State University - Barrett, The Honors College GPA: 3.75/4.0| **Expected Graduation May 2026**
B.S. Honors in Computer Science
Coursework: Data Structures and Algorithms, Principles of Programming Languages, Software Engineering, Theoretical Computer Science, Computer Architecture, Assembly Language Programming, Operating Systems, Information Assurance

WORK EXPERIENCE

NASA L'SPACE PROPOSAL WRITING AND EVALUATION EXPERIENCE **May 2024 - Present**

- Developed a Solar Sail Propulsion System for Space Debris Removal that used an innovative system using IKAROS solar sail technology to capture and deorbit space debris, ensuring long-term sustainability and safety in Earth's orbit.
- Integrated Advanced Autonomous Navigation and Control, implemented autonomous navigation and control systems, including LCD panels for attitude adjustment and reaction wheels for stabilization, to achieve precise maneuvering and debris capture.
- Collaborated on a Multidisciplinary Team of 8 people that worked with a team of engineers and scientists to research, design, and propose a comprehensive debris removal solution.

PROJECTS

LEGO EV3 AND MATLAB| Project for ASU Computer Science Course

- Engineered a passenger carrying vehicle with MATLAB
- Programmed the vehicle to make a 180˚ turn, switch remote control at pickup zones, navigate autonomously to drop off points, acknowledge stop signs, switch to remote control at drop off zones, unlock claws and seatbelt, dropping off the passenger at the drop off point. Used decision tree applications for maze navigation.

LOGICTOPIA BRIDGE CROSSING SYSTEM| Capstone Project ASU Electrical Engineering Course

- Spearheaded the design of a sophisticated finite state machine for a pedestrian bridge crossing system, creating two distinct designs with tailored assumptions. Used state diagrams, distributed systems, state transition tables, and Karnaugh maps for efficient logic optimization. Engineered and simulated the chosen design using Digital to ensure proper logic and equations. Used different test cases to test the state transitions and input combinations.

GYM DATABASE| Gym Database for a local gym using Python and SQL interface

- Designed and implemented a comprehensive database for a local gym, creating structured tables and relationships using MySQL and Python scripts for seamless data management.
- Developed and tested SQL queries for efficient data manipulation and provided a user-friendly interface for gym staff, enhancing operational efficiency and data integrity.

AR FILTER| Created an Augmented Reality Snapchat filter for CalHacks at University of California, Berkeley

- Conceptualized and developed an interactive Augmented Reality (AR) lens using Lens Studio, aimed at enhancing the user experience on Snapchat.
- Created detailed 3D models and animations, leveraging advanced features such as facial recognition and tracking to ensure seamless and engaging user interactions and utilized scripting and built-in tools to implement real-time effects and interactions, ensuring high performance and responsiveness of the AR lens.

LEADERSHIP EXPERIENCE

Residential Peer Mentor - Ira A. Fulton Schools of Engineering **April 2024 - Present**

- Facilitated connections and engagement among first-year Engineering students by supporting key programs and events such as New Student Experience, Homecoming, Family Weekend, and Cultural/Heritage Months; collaborated closely with the office of Student Success and Engagement at Arizona State University.

ACHIEVEMENTS

- **Dean's List | Arizona State University |** Recognized for a GPA above 3.5
- **International Level Abacus and Mental Arithmetic Competition |** Third place worldwide in the math competition held in Malaysia.

Computer Skills:

- **Programming Languages :** Python (Pickle module, CSV module, Data Structures including Arrays, Linked List), Java, C, C++ (STL - Standard Template Library), Scheme, Prolog
- **Database :** SQL (Structured Query Language), Ubuntu, Linux
- **Scientific Computing :** MATLAB**, Web Development :** HTML
- **Microsoft Office Suit :** Excel, Word, PowerPoint, Publisher, Outlook.
- **Google office :** Docs, Slides, Sheets, Drive