

# Yousif Alsabah

602-885-7908 | [yalsabah@asu.edu](mailto:yalsabah@asu.edu) | [linkedin.com/in/yalsabah](https://www.linkedin.com/in/yalsabah) | [github.com/yalsabah](https://github.com/yalsabah)

## EXPERIENCE

### Software Developer Intern

Aug. 2023 – Present

Intel

Chandler, AZ

- Designed and developed **two large-scale React-based enterprise UI applications** supporting factory workflows, data visualization, and role-specific user interactions.
- Built interactive **charts, graphs, and data tables** using **AG Grid** and **Recharts** to visualize real-time application data and operational metrics improving data visibility and reducing manual data lookup time by **30%**.
- Implemented **Redux** for centralized state management across **10+ UI views**, reducing state-related bugs and improving feature development velocity by **25%**.
- Developed **role-based UI authorization** supporting **2+ user roles** and managing access for **1,000+ internal users** across **multiple factory sites**, ensuring secure, permission-driven feature availability.
- Technologies Utilized:** TypeScript, React, Redux, Tailwind CSS, Python, AG Grid, Recharts

### Web Development Intern

Sept. 2022 – Aug. 2023

Intel

Chandler, AZ

- Designed and implemented **two internal web platforms** used to monitor and log operations for **5,000+ factory personnel**, improving operational efficiency by **15%**.
- Automated over **10,000 manual email workflows** using Microsoft Power Automate, improving response times by **35%** and reducing processing delays by **20%**.
- Built Python automation tools including a **lossless TIFF-to-PNG conversion pipeline**, reducing file sizes by **50%** while preserving checksum-verified integrity.
- Implemented a **block-hash image comparison algorithm** achieving **83.6% similarity** and improving defect detection throughput by **40%**.
- Technologies Utilized:** TypeScript, JavaScript, HTML, CSS, SQL, C#, Node.js, .NET, Python, OpenCV, NumPy, MySQL, Git, Power Automate

## PROJECTS

### Eshu/Ender – Common Language Platform for Post-Exploitation Frameworks

Aug. 2024 – May 2025

- Led development of **Ender**, a Flask-based **Common Language Platform** integrating **2 post-exploitation frameworks** (Metasploit and Sliver) into a unified control interface.
- Designed and exposed **REST APIs** enabling execution of **10+ interactive post-exploitation commands** with real-time session tracking and response handling.
- Containerized services using **Docker** to ensure reproducible deployments, environment isolation, and simplified multi-framework integration.
- Reduced manual post-exploitation workflow overhead by **40%** through automation, centralized command routing, and stateful session management.
- Used **Jira** to track development tasks, milestones, and bug fixes across iterative feature releases.
- Technologies Utilized:** Python, Flask, Metasploit RPC, Sliver C2, Meterpreter, Docker, REST APIs, Git, Jira, Linux, Shell Scripting

### Robotics & Autonomous Systems Projects

Aug. 2025 – Dec. 2025

- Built multiple autonomous robotic systems** integrating computer vision perception, AI-driven planning, and precise robot manipulation using the Dobot Magician Lite.
- Developed a fully automated maze-solving and pick-and-place pipeline using **OpenCV perception**, **ChArUco calibration**, and pixel-to-robot coordinate transformations.
- Implemented an **Agentic AI loop** using Claude API for maze corner detection, path validation, tilt correction, and recovery logic, achieving consistent end-to-end task completion.
- Created a computer-vision-based Tic-Tac-Toe system combining **board state detection**, **Minimax decision logic**, and precise robotic drawing control.
- Technology Utilized:** Python, OpenCV, NumPy, Dobot API, ChArUco Calibration, Claude/Gemini APIs, Minimax Algo

## EDUCATION

### Arizona State University

Tempe, AZ

Bachelor of Science in Computer Science GPA: 3.80

August 2021 - May 2025

### Arizona State University

Tempe, AZ

Master of Science in Robotics and Autonomous Systems (Artificial Intelligence) GPA: 4.00

May 2025 – Present

## TECHNICAL SKILLS

**Languages:** Java, Python, C#, C/C++, TypeScript, MySQL, JavaScript, HTML/CSS

**Frameworks:** React, Node.js, Flask

**Tools:** Git, Docker, Jira, Lidar, OpenPCDet, OpenCV, CUDA, ROS 2