

Belal Zahran

Software Developer - Enterprise & Internal Tools

belalzahran@gmail.com | belalzahran.com | (949) 910 7415 | linkedin.com/in/belal-zahran-957886210/ | github.com/belalzahran

PROFESSIONAL EXPERIENCE

Meta	April 2025 - Current
<i>Contract Internal Tools Software Developer</i>	
<ul style="list-style-type: none">• Sole developer of BugMaker Tool, a web-app supporting 3000+ employees and 100+ teams in filing over 40,000 bug reports to date• Modernized BugMaker codebase by migrating legacy Hack/XHP into React components, improving maintainability• Built a BugMaker Insights dashboard with metric tiles and traffic analytics, giving teams visibility into 2,000+ weekly bug reports• Integrated MetaMate AI assistance directly into text fields, enabling auto-generated and refined bug descriptions• Redesigned the BugMaker UI to align with Meta's internal tooling standards, improving usability and consistency• Owned and led the automation initiative to build a new Oculus VR E2E testing tool used to scale reliable testing across devices.• Delivered an MCP-driven automation tool that surpasses legacy Oculus VR test tooling by more than 200% in accuracy.	
AONDevices	Nov 2024 - March 2025
<i>Software Engineering Intern</i>	
<ul style="list-style-type: none">• Utilized libraries like React and Node.js to implement debugging features into full-stack AON360 Codebase• Worked with Embedded RCU's to enable OTA firmware updates and seamless two-way connection with the client device• Developed Python scripts to speed up common workflows, achieving a nearly 2x efficiency increase in standard test procedures• Conducted in-depth evaluations of various Text-to-Speech solutions to identify optimal models for integration into AON360 codebase	
Karma Automotive	June 2023 - Sept 2023
<i>Powertrain Controls Software Intern</i>	
<ul style="list-style-type: none">• Developed an automated VIN-flashing tool using Python reducing vehicle flashing times by 30%• Designed a harness using a CAN-bus reader and python-can library resulting in Karma's first consumer friendly flashing method• Implemented features such as password protection, flashing history, legal VIN verification, and automated key encryption access• Worked on the calibration of the Powertrain Control Unit and conducted torque diagnostics to increase initial torque on vehicles	
Kumon	Sept 2023 - Dec 2023
<i>Freelance Software Developer</i>	
<ul style="list-style-type: none">• Developed a digitized check-in system using Flask, pioneering the Kumon Center's first online homework tracking system• Designed and managed a database using mySQL and mySQL workbench to keep records of 200+ students• Implemented two user friendly GUI using HTML, Javascript, CSS, and Python to reduce record look up time by 50%• Incorporated automated messaging services using Twilio API to foster better communication with parents	

PROJECTS

Automated Medication Dispenser (*C++, HTML, CSS, JavaScript, ESP32*)

- Designed and developed a 3D-printed automated medication dispenser using an ESP32 as the main microcontroller
- Integrated Firebase for hosting services and cloud database for streamlined, easy user access
- Implemented user interface using HTML/CSS/Javascript for real-time control and monitoring of user analytics

SKILLS

Programming Languages: Python, C++, JavaScript

Machines/Hardware: Microcontrollers (STM32, Arduino, ESP32, ATmega32), Raspberry Pi, Soldering, Firmware, Schematics, Circuits

Frameworks & Tools: Flask, Node.js, React.js, Windows, MacOS, Linux, bash, GIT, MySQL, MongoDB, SSH, REST APIs, Firebase, AWS, Google Cloud, Docker, Platformio, Arduino

EDUCATION

University of California, Irvine / B.S. in **Computer Science** / Dean's Honor List

September 2020 - June 2024