Bilal Zakaria

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sometimesb.github.io/Personal-Portfolio/

A motivated engineer with a keen eye for detail and strong problem-solving skills. Proficient in organization and adept in fast-paced settings, I'm a team player skilled in requirements analysis and solution execution. I aim to exceed expectations in a dynamic engineering role, contributing my expertise and continuing to grow.

**EDUCATION**

**Middle Tennessee State University Murfreesboro, Tennessee**

*Bachelor of Science in Mechatronics Engineering with a concentration in CS* Graduation: **May 2023**

* **Minors:** Computer Science, Mathematics GPA**:** 4.0 / 4.0 (Rank #1)

**WORK & LEADERSHIP EXPERIENCE**

**Markem Imaje (Dover Corp)** **Remote**

*Software Solution Engineer* June 2023 – Current

* Leveraged the proprietary CoLOS Applications software toolkit to custom design and implement Web UIs tailored to large customers' specific requirements, enhancing product identification and traceability solutions.
* Employed a .NET Framework (CoLOS built atop of VB .NET) for the robust implementation and customization of interfaces, ensuring optimal performance and user experience.
* Collaborated with cross-functional teams, utilizing MS SQL Server as the backbone database, ensuring seamless integration, data integrity, and real-time access for users.

**Automation NTH** **LaVergne, Tennessee**

*Controls Engineer Intern* May 2022– August 2022

* Successfully devised the AutoCAD Electrical drawings for a B&R automation panel, which included schematics, footprints, and BOM.
* Programmed a MicroLogix 1100 PLC using an inspection sensor, reject sensor, and reject solenoid via RsLogix 500 to streamline the production process by reducing downtime.
* Successfully troubleshot hardware and software issues with PLCs, HMIs, and networks; increased uptime of intern project via Studio 5000.

**Society of Manufacturing Engineers** **Murfreesboro, Tennessee**

*Member, Vice President* August 2020 – May 2022

* Developed a weaponized remote-controlled robot to beat the opposing team in a tournament.
* Led a team of five as the primary software engineer, driving the creation and design of a 'battle bot' within six months.
* Reviewed bi-weekly updates to ensure each group was on track and reorganized groups to meet deadlines.

**PERSONAL PROJECTS**

**Project 4-Sight: Electronic Travel Aid August 2022 – May 2023**

*Full Stack Engineer (*[*Link*](https://github.com/sometimesB/4-Sight)*)*

* Designed a travel assistant jacket for the visually impaired, equipped with sensors to detect obstacles & vibrational motors to provide directional guidance, increasing safety while traveling.
* Taking a lead role in the design, analysis, and testing of the jacket's electrical sensors and actuators, as well as engineering its integration with a real-time website.
* Developed an IoT platform that includes a website and Arduino hardware, allowing users to control navigation and monitor performance data of an autonomous jacket via a user-friendly interface.

**Cryptocurrency Arbitrage Bot April 2021 - Current**

* Developed real-time discrepancy detection, fetching price differences across multiple websites, and immediately notifying via Discord.
* Enhanced trading efficiency by automating a secondary bot for timely selling indications, seamlessly integrated with email and Discord for prompt notifications.

**SKILLS, ACTIVITIES & INTERESTS**

**Technical Skills:**

● Python, PHP, MySQL, SQL Server, Microsoft WorkFlows, HTML, CSS, JS, Relational databases.

● Planning, Organizing, Requirements Gathering, Testing, Execution, Deployment, Implementation.