

## Hayes David Bentley

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**Overview:** Aspiring software and automation engineer pursuing full-time employment graduating in Dec 2023. Excited to tackle new challenges and looking to apply skills learned in four internships, research positions, and University project experience.

## Education and Honors

The Ohio State University, College of Engineering, Aug 2019 – Present

Bachelor of Science, Electrical and Computer Engineering (B.S)

North Central State College, Aug 2017 – May 2019

Associate of Science, Integrated Engineering Technology (A.S)

## Work Experience

### SpaceX, Automation Software Engineering

Starship Production Team, May 2023 – August 2023: Brownsville, TX (Starbase)

- Developed new automated protocol for user management control.

### Tesla Motors Inc, Data and Automation Engineering

Cell Manufacturing, September 2023 – Present: Austin, TX (Gigafactory Texas)

- Created a custom gRPC data pipeline to automate the manufacturing process, resulting in a 97% reduction in process time.
- Designed and implemented a scalable and fault-tolerant automation system for a manufacturing client using Python, RestfulAPI, gRPC, Apache Kafka, and Java. The system will handle over 1,000 component transactions per day.
- Contributed to robust internal data visualization tool with experienced gained in Docker, deploying Kubernetes pods, and React.

### Marathon Petroleum Corporation, Automation and Controls Engineering

Terminal Engineering, May 2022 – August 2022, Findlay, OH

- Developed custom algorithms to control blending and dispersion of high value petroleum products
- Developed low level PLC code to enact control measure for petroleum mixing/blending.

### Marathon Petroleum Corporation, Application Development Engineering

Commercial Marketing Applications, May 2021 – August 2021, Findlay, OH

- Primary developer that converted cloud-based Salesforce CRM data into local SQL Server databases.
- Built custom ASP.NET Core web application using C#, SQL Server, and Kendo UI (JS)

## Research Experience

### Center for Design and Manufacturing Excellence, Student Software Engineering

Student Software Engineering, September 2021- May 2022, Columbus, OH

- Created android application interfaced with mobile Spectrometer to analyze chemometric properties
- Skills used: Java, Gradle, Android Studio, Machine Learning, Bluetooth Low Energy

## Leadership Experience

- Project leader on electric vehicle racing team (North Central State College) managing five other students
- Training supervisor of 30 technicians, educating on the implementation of cell tracking system (Tesla)
- Operations coordinator synchronizing wiring efforts of 10+ electricians (Marathon)

## Qualifications and Characteristics

Programming Languages: Python, Java, Go, C#, React.JS

Software Skills: gRPC, REST API, Protocol Buffers, npm

DevOps: Docker, Kubernetes, Splunk

Database: Amazon AWS S3, Trino, MySQL, Postgres, Dbeaver