Palaash **Kolhe**

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Skills

Languages: Java, JavaScript, C, C++, C#, Python, SQL, HTML, CSS, SCSS
Technologies: Spring, Node.js, MongoDB, Firestore, Micronaut, Express.js, ASP.NET, React.js, OpenCV
Infrastructure: AWS, Google Cloud, Docker, Terraform, Git, Jenkins

Experience

Ford Motor Company

Software Engineer Intern — *Jan 2022 – Apr 2022*

- Developed **asynchronous RESTful microservices** using **Java Spring Boot** to publish critical alarm events to **5 teams**, utilizing the **GCP Pub/Sub message broker** .
- Optimized outdated infrastructure by using the **Micronaut** framework with GraalVM within the Connectivity Dashboard's data visualization system, reducing server response times by **77%**.
- Engineered a **Pub/Sub topic subscriber** service using Spring and Terraform to consume and store published messages in **SQL-based Datastore DB** with **0% message loss rate**.
- Created **Docker images** for microservices and performed Docker container based deployments to **AWS ECS** and **GCP Cloud Run**.
- Implemented unit and integration test cases using **JUnit** and **Mockito** to follow **test-driven development** process.

Utradea

Technology Development Intern — *May 2021 – Sep 2021*

- Implemented **sentiment analysis** using **winkJS (NLP library)** and **Node.js** to analyze **10,000+** social media posts per day and quantify community sentiment surrounding stocks.
- Led and built full-stack portfolio balancing tool using the **MERN stack** and **linear algebra computation** libraries to allow the user to realign the weightings of their assets, **increasing user traffic by 13%**.
- Developed various **RESTful API endpoints** using **Axios** (promise-based **HTTP** client), to fetch data and update the **MongoDB**.
- Designed and created **server-side web application logic** using **Node.js** that integrated the app with other third-party web services such as **Facebook's Graph API**.

Projects

Meal Drop

Jan 2022

- Engineered a **full-stack** application utilizing the **MERN** stack to create a pickup scheduling platform to mitigate food waste problems.
- Designed scalable data schemas implementing **Node.js** and **MongoDB** to store critical data.
- Created API layer using **Express.js** and **Node.js** to accept **CRUD** requests for pickup postings.

Carbon Neutral Shipping App

Dec 2021 - Jan 2022

- Built a web app using **C#** and **ASP.NET MVC** to track carbon emissions from package-based delivery.
- Implemented an object-database mapper using the **Microsoft Entity Framework** to maintain and enhance the data framework.

Smart Glasses

Sep 2020 - Dec 2020

- Collaborated on a **5-person team** to create a pair of **text translating smart glasses** that scan foreign language text through a camera and display the English-translated text on the glasses lens.
- Developed a media transfer method using the **Dropbox API** in a **Python** script to transfer images taken from the glasses to a remote server for **text recognition and translation.**
- Devised the **OCR script** using **OpenCV** to scan foreign text and convert to English through the **Google Translate API**.

Awards

Nexen Sr. Innovator Award — *Wood Buffalo Youth Science Foundation*
Awarded to an original project that describes a technological advancement.

Collins Aerospace Innovate Award — *FTC Alberta Championship*
Recognized for the most innovative and creative robot design solution.

Education

University of Waterloo

Waterloo, ON

Candidate for Bachelor of Software Engineering (BSE) — *2020 – 2025*

GPA: 3.9 / 4.0