

# Heemansh Rye Sookha . Jarvis Consulting

I am an experienced software developer with over two years in the field, proficient in Python, Django, NodeJS, and modern JavaScript frameworks like React.js, Angular, and Vue.js. My expertise lies in creating responsive and mobile-friendly user interfaces using CSS Grid and Flexbox, and I am skilled in working with CSS preprocessors like Sass. I have a strong ability to translate design concepts into interactive and accessible user experiences using tools like Figma and InVision. I am bilingual in French and English, and I pride myself on my strong communication and organizational skills. I hold a Bachelor of Science in Computer Science from Memorial University of Newfoundland and have worked on various projects, including AI and machine learning, game development, and operating systems.

## Skills

**Proficient:** Java, Linux/Bash, RDBMS/SQL, Agile/Scrum, Git, Python, CSS, JS(ES6+)

**Competent:** Chart.js, Sass, Redux, Vuex, Pandas, C++

**Familiar:** AWS/Azure, Kubernetes, NPM, WCAG, Flexbox

## Jarvis Projects

Project source code: [https://github.com/jarviscanada/jarvis\\_data\\_eng\\_HeemanshSookha](https://github.com/jarviscanada/jarvis_data_eng_HeemanshSookha)

**Cluster Monitor** [GitHub]: This project is an automated tool for monitoring and recording resource usage in a Linux Cluster. It continuously gathers data on CPU, memory, and disk usage across machines, and stores the information in a specialized database. Tailored for system administrators and developers, this solution is ideal for managing and optimizing the performance of both physical and virtual Linux systems.

**RDBMS/SQL** [GitHub]: This project provides documentation on PostgreSQL exercises covering topics such as Basics, Joins, Aggregation, and Strings. These exercises help developers practice querying relational databases using practical features and proper formatting.

**Grep App** [GitHub]: This Java application enables to search for lines matching a given regex pattern within files. It processes files in a specified directory line by line and writes the matched lines to an output file. Designed as a cross-platform solution, it mirrors the functionality of GNU's grep, with the flexibility of being runnable on any system through the JVM.

## Highlighted Projects

**Parking spot management Software:** This project was developed for my computer vision and machine learning course. We developed it so as we could more efficiently manage parking spots using Neural Networks on cameras that take photos every second and analyse which parking spot is free by identifying whether it has a car on it. It was implemented using openCV to find empty rectangular spaces on the parking image for the CNN where we built on top of VGG16 with some hyper-parameters and attained a test loss of about 0.17.

**Super Mario game:** This game was made from scratch using SfmL library and creating all the physics as an experiment with integrated inventory, 3 different types of maps and also difficulty selection and a custom level editor all of which was created in C++ and Javascript. We used all custom assets and we also implemented a level engine to modify and create new levels from within the app.

**Operating System:** where we wrote some of the major aspects of an OS involving semaphores and mutex locks and first-come, first-served (FCFS), round-robin (RR) scheduling, where each task is run for a time quantum (or for the remainder of its CPU burst).

## Professional Experiences

**Software Developer, Jarvis (2024-present):** Worked alongside a mentor to develop a Linux cluster monitoring system to review where computing resources are being used and how to optimise them.

**Software Developer, Beaufort Solutions (2021-2023):** I developed cross-platform compatible solutions for an e-commerce site and app using React Native and Flutter. By implementing lazy loading techniques and optimizing images with Webpack, I improved the website's response time by 20%. My role involved debugging and resolving issues in JS, HTML, and C++ with the help of React Testing Library and Cypress, ensuring efficient bug detection and resolution. I

facilitated seamless communication in both French and English through platforms like Slack and Microsoft Teams, while conducting thorough code reviews and testing on a donor-facing web app to maintain high code quality and enhance user experience. My database management expertise with MySQL and PostgreSQL allowed me to implement indexing and query optimization techniques. I played a key role in enhancing UI/UX through Figma for design and prototyping, collaborating using InVision for feedback and iteration. Additionally, I managed Shopify-based websites, handling customization, theme development, and technical issues. I maintained and optimized the e-commerce app with Chart.js for data visualization, identifying key product trends. I also implemented new app functions using AWS Lambda, S3, and DynamoDB, and deployed applications on Amazon EC2, contributing to a 10% increase in revenue. Finally, I integrated GraphQL for efficient API communication and set up CI/CD pipelines using Jenkins for automated testing and deployment.

## **Education**

**Memorial University of Newfoundland (2018-2023)**, Bachelor of Science, Computer Science - GPA: 3.2/4.0

**Cambridge university (2013-2017)**, A and AS diploma, Applied Sciences

## **Miscellaneous**

- Badminton player
- Competitive gaming
- Book Worm