

# SACHITH RANAWEERA

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## Education

**BEng: (Hons) Computer Engineering, 01/2024**

**York University** - Toronto, ON

Ontario Secondary School Diploma, 05/2017

**Victoria Park Collegiate Institute (VPCI)** - Scarborough, Toronto

- Scholar

## Skills

JavaScript, MySQL, Python, HTML5, CSS3, SASS, Python, PHP, Git/GitHub, Linux, NodeJS, ExpressJS, React, PostgreSQL, TypeScript, NoSQL, Unit testing, Bootstrap, DevOps

## Experience

**Programming Team Lead, 01/2023 to 04/2023**

**York University** - Toronto, ON

- Front-end developer and led 2 engineering students in the design of Notification application using Figma, resulting in a 50% improvement in students' commute and study time.
- Conducted focused research and surveys with over 100 students to gather functional and non-functional requirements, creating an ideal Notification application.
- Engineered an interactive prototype to display skills in UI/UX and front-end design, driving a 25% improvement in website usability and a 30% increase in customer engagement.

**Capstone Team-Lead Programmer, 09/2022 to 04/2023**

**York University, Wifi Indoor Localization** – Toronto, ON

- Directed team of 4 engineering students and full-stack developers, directed design and implementation of Python and NumPy-based machine learning algorithm, achieving 95% accuracy in indoor localization in real-time.
- Developed a Wi-Fi-based system for locating available computers at York University, improving student efficiency by 40%.
- Employed Excel for systematic data collection, organization, and management of MAC addresses and RSSI, optimizing the dataset creation process for algorithm training by 40%.

**Volunteer, 03/2017 to 09/2017**

**Victoria Park Collegiate Club Service** - Toronto, ON

- Instructed and mentored 3+ students in Math, Computer Science, and Chemistry to enhance academic performance.
- Spearheaded library organization project, enhancing book accessibility and student experience; collaborated with educators to curate educational resources, resulting in a 10% increase in student engagement with library materials.
- Collaborated with fellow volunteers to streamline library processes and enhance overall efficiency by 20%.

**Office Assistant / Volunteer**, 03/2016 to 03/2017

**A+ Academy** - Toronto, ON

- Initiated 80% of classroom cleanliness initiatives, ensuring an immaculate learning environment.
- Offered personalized academic assistance to 5+ students per semester in Math, Computer Science, and Chemistry, leading to improved comprehension and performance.
- Led the strategic rollout of advanced inventory management systems in conjunction with academic partners, boosting resource allocation efficiency and achieving a 25% reduction in waste.

## Projects

### ASL Gemini App

- Designed and developed an application leveraging an 89% accuracy trained machine learning ASL model integrated with Gemini AI for real-time feedback.
- It dynamically tracks users' hand movements in real-time, accurately predicting ASL letters using ASL trained model. These predictions are seamlessly integrated with Gemini AI, delivering comprehensive feedback to users under 40 seconds.

### Weather App

- HTML/SCSS Integrated Weatherbit API to retrieve accurate, real-time weather data on call, following HTTP protocols and Rest API for secure and efficient communication, resulting in a 14% reduction in API call time.
- Transformed Axios for efficient API requests and administered Node.js with Express and EJS for robust back-end operations, achieving a 24% improvement in server uptime and a 10% reduction in memory usage.
- Increased user engagement by 30% through timely and accurate weather updates on the front-end development using HTML/CSS, Node.js, and EJS template language.

### Sachith Arach Portfolio

- Architected a cutting-edge personal portfolio website with advanced frontend and backend features using HTML, JavaScript, React, and SCSS; optimized user experience, leading to a 40% rise in site traffic and a 25% increase in user engagement.
- Applied a one-to-one method via JSON, resulting in 50% faster data updates and 30% improved file handling proficiency.