

Rathisan Rajakrishnan

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EDUCATION

University of Waterloo

Sept. 2024 – Apr. 2029

Candidate, Bachelor of Mathematics, Honours, Co-op

Waterloo, ON

- University of Waterloo President's Scholarship of Distinction (\$5,000)

Sandalwood Heights Secondary School

Sept. 2020 – Jun. 2024

Ontario Secondary School Diploma

Brampton, ON

- Recognized as Top Ontario Scholar in Peel and Schulich Leader Scholarship nominee by achieving the highest academic average and earning multiple awards through academic excellence.

SKILLS

Languages: Python • Java • JavaScript • (Node.js, React.js, Three.js) • TypeScript • HTML5/CSS3 • MATLAB

Tools: Flask • Git • Figma • Matplotlib • TensorFlow (Keras) • Jupyter Notebook • Google Colab • Scikit-learn

Relevant Coursework: Designing Functional Programs • Calculus I & II • Discrete Math I • Linear Algebra I

EXPERIENCE

Software Developer and Ambassador

Sep. 2023 – Jul. 2024

Canada Learning Code

Toronto, ON

- Founded and led a coding club, teaching **Python**, **Java**, **JavaScript**, and **HTML5/CSS3** to over **30 students**, as demonstrated by mentoring them to develop personal programming projects.
- Secured **first place** in the Quarterly Challenge, earning a scholarship for the **Grow with Google Cybersecurity Career Certificate**, by applying advanced coding techniques and fostering club member participation.
- Developed and implemented personal technical projects, including a **Caesar cipher encryption tool** and a **password manager**, by applying programming languages such as **Python** and **Java** to create web applications.
- Participated in a tech ambassador program, gaining industry insights and promoting technology education, as demonstrated by organizing **coding workshops** and collaborating with professionals on initiatives.

IT Systems Developer Co-op

Jul. 2023 – Aug. 2023

PLASP

Mississauga, ON

- Designed and implemented a **tablet inventory management system**, improving accountability and reducing downtime by over **40%**, by streamlining tracking and maintenance processes.
- Resolved over **50+ software issues** and performed regular system updates, optimizing device performance and improving user experience, by applying technical troubleshooting and IT best practices.
- Automated data backup and reset procedures, enhancing efficiency and ensuring reliable maintenance, by developing **custom scripts** and **workflows**.
- Led the team for a week as an **assistant manager**, overseeing all operations and ensuring smooth execution of tasks, by coordinating workflows and optimizing team performance.

PROJECTS

Personal Website | *Self-taught*

- Designed a website built on **React.js**, styled with **Tailwind CSS** to display all personal projects and experiences.
- Applied seamless transition functionalities with **react-router-dom**, allowing for efficient site navigation.
- Integrated a **3D computer model** using **Three.js**, enhancing visual appeal and interactivity, and added **React Tilt** for smooth, dynamic tilt effects to engage users.

Machine Learning Model to Classify Mesothelioma | *Independent Research Project*

- Developed a binary classification model using **Keras** and an **Artificial Neural Network (ANN)** to predict mesothelioma risk based on a clinical dataset.
- Normalized the dataset using **Scikit-learn** to standardize features, ensuring consistent data scaling and enhancing model performance for more accurate predictions.
- Authored an independent research paper detailing the implementation and optimization of the **ANN-based classification** model, emphasizing feature engineering, **dataset preprocessing**, and evaluation metrics.