

SATRAJIT CHATTERJEE

Computer Science And Mathematics Dual Major Student

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WORK EXPERIENCE

Full-Stack Software Developer

uOttawa Engineering Outreach

📅 May 2020 – December 2021 📍 Ottawa, Canada

- Developed modern UX components using **Angular** and **SCSS** along with efficient **Typescript** practices for a smooth user interface.
- Built **REST API** endpoints in Apache Sling for features requested by university staff and liaison clients using **Postman** for testing purposes.
- Optimized testing platforms by reducing stack test execution time by **60%**. This was done by converting test suites from **Selenium** to **Protractor**, and back-end testing to **Cypress**.
- Enhanced **API** responses by writing efficient **PostgreSQL** queries, speeding up services by **90%**.
- Utilized AWS services such as **S3** buckets for storage and **ECS** for deployment with continuous integration using **Travis CI**.
- Designed a new interface for session management in **Figma**, followed by a full-stack implementation of the design over a sprint-based time frame.

Mathematics and Science Tutor

Self-Employed

📅 August 2017 – June 2019 📍 Montreal & Markham, Canada

- Tutored high-school students in **mathematics**, **science**, and **computer science** with visible improvement in their skills and grades.
- Taught **ESL students** by accommodating for potential gaps in communication during lessons.
- Partook in **peer-tutoring** programs, providing lessons for free to students struggling with concepts before major deadlines.

PROJECTS

KaratAI - Karate And Fitness Trainer

- Created a fitness web-app in **React** and **Express** with posture recognition with **OpenCV** on a **Python** backend.
- Fabricated wireframe designs in **Adobe XD** before implementation.
- Designed an original algorithm that selectively processes frames and maps them to a sequence of key nodes to process any video at a rapid pace.

G3PO - Genetic Code Analysis

- Developed a Python software utilizing Machine Learning frameworks such as **Tensorflow** and **scikit** libraries to analyze genetic code and generate medical predictions.
- Demonstrated applications in predicting similarities of genome samples using graphs, along with mapping related symptoms in a host.

Reconattendance - Facial Recognition And Rapid Image Processing

- Constructed an automated attendance system using an original minimal facial recognition algorithm based on concepts of **OpenCV**.
- Built a complete executable front-end application in **Java**, allowing clients to use the application without external software.
- Connected the developed algorithm to a drone as an experimental feature using its API, optimizing for rapidly changing frames by filtering input data.

EDUCATION

Joint Honours BSc in Computer Science and Mathematics

University Of Ottawa

🎓 **CGPA: 9.13 (Equivalent to 4.0 GPA)**

📅 September 2019 - April 2023 (Expected)

TECHNICAL SKILLS

Programming Languages

Java Python C++ Golang Node
Angular Typescript SCSS Javascript
postgreSQL Ruby Common Lisp R

Programming Tools

Git Zenhub Trello Linux/Bash
AWS LaTeX Travis-CI Docker

Programming concepts

Agile Machine Learning Blockchain
Data Structures GUI/UI/UX

EXTRACURRICULAR

Computer Science Student Association Academic Vice President

- Contributed to resolving academic issues at the university and remote learning accommodations.

Debate Club

President

- President of the high-school **Debate Club** and member of university debate club.

ACHIEVEMENTS

University of Ottawa Chancellor's Scholarship

- uOttawa Faculty Of Engineering, 2019

Department Of Computer Science Award

- Bur Oak Secondary School, 2019

McGill Science Award

- McGill University, 2019

Faculty of Computer Sciences And Programming Award

- Concordia Science Fair, 2018

SPOKEN LANGUAGES

English
French



OTHER INTERESTS

Badminton Chess Art Astronomy