SATRAJIT CHATTERJEE

Computer Science And Mathematics Dual Major Student

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WORK EXPERIENCE

Full-Stack Software Developer

uOttawa Engineering Outreach

May 2020 - Present

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 fullstack 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

KaratAl - 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: 9.15 (Equivalent to 4.0 GPA)

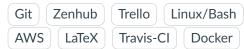
September 2019 - April 2023 (Expected)

TECHNICAL SKILLS

Programming Languages



Programming Tools



Programming concepts



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