

# SATRAJIT CHATTERJEE

## Computer Science And Mathematics Dual Major Student

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## WORK EXPERIENCE

### SRE Software Developer

#### RBC Royal Bank of Canada

📅 January 2022 – April 2022    📍 Toronto, Canada

- Investigated **SRE** solutions to analyze data from **SLI** logs using **supervised learning** and predict **error budget** of on-boarded services.
- Implemented employee portfolio of internal services by generating **GraphQL** endpoints using **ElasticSearch** and **PostgreSQL** queries, with upgraded queries that improved data access time by **40%**.
- Created interactive service **dependency graphs** in **React** using **React Flow** and **MUI** with adaptive node generation and positioning.
- Designed **flow**-based interactive prototypes using **Figma** and **LucidChart** and implemented them over a sprint-based **Agile** environment.
- Managed project deployment using containers on **OpenShift** and **Helios**.

### Full-Stack Software Developer

#### uOttawa Engineering Outreach

📅 May 2020 – December 2021    📍 Ottawa, Canada

- Developed a session management interface using **Typescript**, **Angular** and **SCSS**, designed in **Figma** prioritizing user experience over an **Agile** implementation.
- Built **REST API** endpoints in Apache Sling for features requested by university staff and liaison clients using **Postman** for testing purposes.
- Optimized testing process with **60%** reduced stack execution time, converting test suites from **Selenium** to **Protractor** and back-end testing to **Cypress**.
- Enhanced **API** responses by writing efficient **PostgreSQL** queries, speeding up endpoint services and batch calls by **90%**.
- Utilized AWS services such as **S3** buckets for storage and **ECS** for deployment with continuous integration using **Travis CI**.

## PROJECTS

### KaratAI - Karate And Fitness Trainer

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

### Reconattendance - Facial Recognition And Rapid Image Processing

- Constructed an automated attendance system using an original minimal facial recognition algorithm based on concepts of **OpenCV**.
- Developed an API to be called from a drone, optimizing for rapidly changing frames by filtering input data.

## EDUCATION

Joint Honours BSc in Computer Science and Mathematics (**3rd Year**)

University Of Ottawa

🎓 **CGPA: 9.0 (Equivalent to 4.0 GPA)**

📅 September 2019 - April 2023 (Expected)

## TECHNICAL SKILLS

### Languages

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

### Frameworks

Angular   React   Express   Cypress

### Backend

PostgreSQL   GraphQL   ElasticSearch  
Spring Boot   Apache Sling

### Tools

Git   Zenhub   Trello   Linux/Bash  
AWS   LaTeX   Travis CI   Docker

## EXTRACURRICULAR

### Computer Science Student Association Academic Vice President

- Contributed to resolving academic issues such as learning accommodations.
- Organized academic and social events such as workshops for students.

## 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

## SPOKEN LANGUAGES

English  
French

