

# Kassim Santone

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## Skills

Languages: C++, C, Java, Python, Scala, JavaScript, R, SQL  
Tools: Ruby on Rails, Python Flask, GraphQL, Elasticsearch, AWS, Excel

## Experience

### Lumentum

May 2018 – Aug 2018  
Ottawa, Ontario

#### Software Developer

- Wrote alignment code for optical devices which allowed process engineers to receive information on optical devices in real-time and implemented synchronized motion for multiple axes.
- Implemented optimization algorithms (Bayesian optimization and bisection method) into existing optical device software to calibrate hardware to run more efficiently.
- Performed statistical analysis on optical device performance with Excel and SAS.

### University of Waterloo

Sept 2017 – Dec 2017  
Waterloo, Ontario

#### Undergraduate Research Assistant

- Researched Operator Theory and worked towards simplifying  $(k, m)$ -transitivity ( $k, m$  arbitrary integers).

### NetSuite

Sept 2016 – Dec 2016  
Kitchener, Ontario

#### Software Engineer in Test

- Wrote automation tests in Java to expose vulnerabilities in current codebase.
- Used SQL to data scrub customer issues and updated codebase to prevent issues from recurring.
- Performed manual tests to find issues in NetSuite dashboard; updated UI and backend to resolve issues.

### Silfab Solar

Jan 2016 – Apr 2016  
Mississauga, Ontario

#### Data System Administrator

- Created overall equipment effectiveness (OEE) sheets with Excel and linked sheets to SQL database.
- Updated previous OEE models with VBA macros to increase ease of use for operators.
- Updated previous SQL database schema to account for changes in the company.

### CIBC

May 2015 – Aug 2015  
Toronto, Ontario

#### Application Developer

- Implemented authentication features (facial recognition and picture pattern) into Mobile Banking app on iOS and Android platforms.
- Worked with graphic designer on user interface and user experience for Family Banking app.

## Projects

### Toy Library

- A Ruby on Rails project where users can post, search for and sign out up to 3 books using a Postgres full-text search, with the option for a variety of different filtering methods.
- Implemented user interface from scratch and implemented a variety of sorting and filtering methods to help users find books appropriate for them.
- Implemented user authentication and mailer functionality and stored photos using AWS S3.
- Link to project: <https://toylibrary.herokuapp.com/>

### Credit Card Fraud Detector

- A Python project implementing machine learning algorithms (isolation forest and local outlier factor) to predict if a given credit card transaction is fraudulent.
- Created data visuals to demonstrate variables in credit cards that may influence likelihood of fraud, which were then used to determine which algorithms were appropriate to make predictions.
- Link to project: <https://github.com/ksantone/CreditCardFraudDetector>

### JournalShare

- A Python Flask project where users can post journal entries either as private or public.
- Privacy and pagination of posts implemented through Flask macros.
- Users and journal entries are all stored using SQLAlchemy object relational mapper.
- Link to project: <https://journalshare.herokuapp.com/>

## Education

### University of Waterloo

Sept 2014 - Present

- Double Major in Computer Science and Pure Mathematics (Dean's Honour List for GPA over 87%).
- Scored top 400 in the world on the William Lowell Putnam Math Competition.
- Winner of University of Waterloo's Pi Recitation Contest.