# Kassim Santone

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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 real-time alignment code for optical devices in C# 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).

# Sept 2016 - Dec 2016

#### Software Engineer in Test

Kitchener, Ontario

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 search for and sign out books using a Postgres full-text search, with the option for a variety of different filtering methods.
- Implemented user authentication and mailers with a Ruby gem called Devise and stored photos using
- 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.