

# SHAYON BANERJEE

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## Employment

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### IBM – Security Intelligence

Ottawa, Canada

Software Developer

Jan 2018 to Apr 2018

- Developed solutions for event collection and processing on IBM's SIEM product, Qradar.
- Fixed critical IPv6 and data-forwarding encryption defects shipped to over 10,000 customers.
- Resolved 18 backend and client-side defects – expected number was 8 – a 225% delivery.
- Worked on new and legacy Qradar platforms using Java, JSP, JavaScript, SQL, and Python.

### CAE - Cloud Enabled Services Team

Montreal, Canada

Full-Stack Developer

May 2017 to Aug 2017

- Developed tools and web apps for data analysis on a 100 terabyte flight simulator blob storage.
- Increased product code coverage from 10% to 55% while maintaining TDD principles.
- Worked extensively with C#, Angular2, and the Azure Service Fabric.

### MacroTech Steuerungstechnik GmbH

Freiburg, Germany

Programming Assistant and Web Developer

May 2016 to Aug 2016

- Tested and refactored in-house interface modules for a high vacuum process controller using C++.
- Rebuilt the architecture of the company website by applying HTML, CSS, JavaScript, and PHP.

## Skills

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**Languages:** C, C++, C#, Java, Python, JavaScript, SQL, Bash, R, and Scheme.

**Other tools:** Node.js, Angular2, ExpressJS, MongoDB, Android, HTML/CSS, Qt, jQuery, Git, Unix/Linux.

**Interests:** Executive member at Waterloo Networking Association, Project Euler, Hackerrank, Leetcode.

## Notable Projects

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### IslandConquer (C#, Unity, uNet)

- Developed the mechanics, physics, collision detection, and networking for a 3D multiplayer FPS game.
- Incorporated smart AI bots with randomized spawning, movement, and ability to engage players.

### MusicInstructor (Java, Android)

- Application listens to a user playing a song in real-time and provides feedback based on performance.
- Uses the BPM of a song and a collection of expected frequencies to determine if the correct note is played.

### MyChauffeur (Python, TFLearn, AlexNet)

- A self-driving convolutional neural network that classifies frames to a certain direction of movement.
- Model trained on 2 hours of gameplay, on an online car simulator, resulting in 84% accuracy.

### LawYourUp (Python, Flask, HTML, CSS, JavaScript, Java)

- Collaborated with a lawyer to create an application that mitigates the hassle of finding legal precedent.
- Trained a model on 300,000 court cases using the Doc2Vec algorithm to match similar cases instantly.

## Education

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### University of Waterloo

Bachelor of Computer Science 2020

Courses: Algorithms, Data Structures, OS, Compilers, OOP, Combinatorics, Mathematical Statistics.