

# TOLGA OZYOLCULAR

COMPUTER ENGINEER

## PROFILE

I'm Tolga Ozyolcular. I hold a bachelor's degree in Computer Engineering from the University of Ottawa and have 4+ years of engineering work experience with 7+ years of project experience. I am strongly interested in solving technical problems and business development and am also able to speak in English and Turkish.

## EDUCATION

### University of Ottawa

Computer Engineering (BSc) | 2010 - 2015

Studied a discipline that integrates several fields of electrical engineering and computer science required to develop computer hardware and software. Received training in hardware-software design and integration by writing software/firmware for real-time systems and designing VLSI chips, analog sensors, microprocessors, mixed-signal circuit boards, operating systems, and more.

## SKILLS

Java	★★★★★★
Python	★★★★★
JavaScript	★★★★★
HTML5 / CSS	★★★★★★
Spring / Struts	★★★★★
Git / Jenkins	★★★★★★
Docker	★★★★★
Kubernetes	★★★★★
Jira / Confluence	★★★★★★
Agile Practices	★★★★★★
Oracle / OEM	★★★★★
MySQL	★★★★★★
PostgreSQL	★★★★★★
Linux / Unix	★★★★★★
SCCM	★★★★★★
Nagios / Puppet	★★★★★
Cyber Security	★★★★★

## WORK EXPERIENCE

### Software Engineer

Canadian Security Intelligence Service. Ottawa, ON.

2017 - Present

Designed and engineered end-to-end solutions using artificial intelligence/machine learning to assist with the search and discovery of structured and unstructured data at massive scale. Ensured the highest levels of software availability and security in a Top Secret environment.

### Systems Engineer

Shared Services Canada. Ottawa, ON.

2016 - 2017

Designed and engineered in-house applications and solutions requested by clients and upper management such as bidding systems, ticket/request submission systems, etc. Was responsible for implementing CI/CD pipelines used to automate the build, test, and deployment phases of applications. Implemented reliable automation of reoccurring tasks and monitoring for all applications. Also partook in main troubleshooting and incident handling of applications after release.

### Database Administrator

Shared Services Canada. Ottawa, ON.

2015 - 2016

Installed, upgraded, and configured MySQL, Oracle, MS SQL, and Mongo databases. Architected and implemented data centre transfers, disaster recovery protocols, backup processes, and more, while configuring user privileges and access controls to prevent security breaches. Configured many databases for performance and high availability with low risk of failure for 100,000+ users.

### Software Developer (Intern)

Shared Services Canada. Ottawa, ON.

2014- 2015

Designed and developed many pop-up applications such as environment locking network usage user-end agreements, different charity donation notifications, and event notifications, deploying them to over 7000+ users using the Microsoft SCCM deployment system. Altered and deployed hundreds of COTS applications to requesting users throughout the Government of Canada.

## CONTACT

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## AWARDS

### Windows 8 Application Development

*CUSEC* 2013

Represent the University of Ottawa engineering faculty at CUSEC 2013 to compete in the Windows 8 Application development competition, finishing in second place. There were 22 competing universities.

## COURSES

### MySQL for Database Administrators 3.1

*ExitCertified* 2015

Learned about server security, improved query performance, and MySQL cloud structures in addition to MySQL basics.

### Microsoft SQL Server 2014 Databases

*Global Knowledge* 2015

Learned about suggested best practices for maintenance, data encryption, and automated tasks in addition to MS SQL basics.

### Business Analysis Essentials

*Global Knowledge* 2017

Learned best practices of business analysis and understood how to analyze management workflow models, review requirements documentation, review vision and scope documentation, etc.

## INTEREST

- Software Development
- Blockchain
- Artificial Intel.
- Algorithm Optimization
- Music
- Boxing

## NOTABLE PROJECTS

### Big Data Intake & Processing

*Canadian Security Intelligence Service. Ottawa, ON.*

Joined a team in designing a platform which handles petabyte-scale data through a combination of scalable architecture and federated data storage. Platform included a web-based mapping interface that handles millions of data points dynamically displayed at once. Also enabled multiple users, within and across organizations, to seamlessly, securely, and collaboratively analyze the same data without interruption.

### Procure-to-Pay (P2P)

*Shared Services Canada. Ottawa, ON.*

Took lead role in the development and implementation of the Procure-to-Pay service. Worked with employees from iValua to design a new self-service web portal which gave Shared Services Canada suppliers the ability to submit bids and invoices online directly through our financial systems. Gained excellent experience in business workflows, user load management, and solution engineering. There are currently 9000+ users using this service.

### Government of Canada Service Express (GCSX)

*Shared Services Canada. Ottawa, ON.*

Took lead role in the development and implementation of the GCSX platform and assisted in the development of multiple functions GCSX has to offer. GCSX is a ticket/request submission system available exclusively to SSC employees. It's functionality includes the ability to submit requests for user IDs, remote computer access, new hardware/software (such as tablets, blackberries, etc), new application accounts (such as P2P, GCDocs, etc), and more. There are currently 10000+ users using this service.

### DrumSense Application (Personal Project)

*Personal Time. Ottawa, ON.*

Created and designed a mobile app for drummers consisting of a front-end iOS/Android app, a back-end server, a MySQL database, and a hardware component made up of vibration sensors and a microcontroller. The app would generate a randomized 32 bar track based on the users selected genre and experience level. The users drumming would be monitored and recorded by the vibration sensors and the app would output how many notes were played correctly/missed while giving advice on tempo, speed, and rhythm. These statistics were then stored on the server and the improvement over time was shown graphically.

## REFERENCES

### Jonathan Vescio

*Team Lead  
Government of Canada*

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Government of Canada*

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