

# Tristan Amini

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## EDUCATION

**University of Waterloo**  
SYSTEMS DESIGN ENGINEERING  
Class of 2018

## CONNECT

Github: [github.com/Tamini](https://github.com/Tamini)  
LinkedIn: [linkedin.com/in/tamini](https://linkedin.com/in/tamini)

## TECHNICAL SKILLS

### C++

- Worked in C++ for driver dev at AMD.
- Created KMD fuzz tester at AMD.
- Used in game AI development at EA.

### Java

- Created AntiChess and others games.
- Utilized in Selenium tests at Polar.
- Used in website backend at Intersect.

### SQL

- Wrote scripts to dump SQL at Polar.
- Setup/maintain SQL stack at Intersect.
- Shifted NHL AI backend to SQL at EA.

### C#

- Writing scripts for my Spark game.
- Wrote animation processors for EA.
- Created animation placers for EA.

### Python

- Wrote bot for Polar's internal IRC.
- Worked with Django at Polar.
- Write scripts to speed up school work.

### MATLAB

- Learned in university courses.
- Utilized for signal processing.
- Simulated projects for ideal results.

### Additional Skills

Git,  $\LaTeX$ , Scala, Go, Blender, Maya,  
Unreal Engine 4, x86 Assembly

## WORK EXPERIENCE

**ELECTRONIC ARTS** | ASSOCIATE DEVELOPER - NHL GAMEPLAY  
September 2016 - December 2016 | Burnaby, BC

- Suggested and implemented SQLite to store different AI sequences for use in-game and to speed up development time.
- AI database changes required rewriting much of the legacy C++ code for new read and write operations.
- Created a set of placers and processors in C# to organize, expediate and improve the animation selection process.

**AMD** | DRIVER DEVELOPER

January 2016 - April 2016 | Markham, ON

- Led the team that developed software in C++ to simulate attacks on the AMD display driver. Fixed all identified security vulnerabilities leading to a more secure and reliable driver for AMD's users.
- Fixed bugs and worked on features in the AMD Kernel Mode Driver.

**IBM** | OPEN SOURCE COMPILER DEVELOPER

May 2015 - August 2015 | Markham, ON

- Part of the two-man team that ported the OCaml compiler to the Z Architecture. Required writing x64, PPC and Z Assembly.
- Worked on the Go Assembler and Linker for Z.

**INTERSET** | SOFTWARE ENGINEER

September 2014 - December 2014 | Ottawa, ON

- Created Scala application to read and anonymize millions of data entries.
- Maintained and set up a Hadoop/HBase/Phoenix/Spark install on AWS.
- Built company web pages using JavaScript, HTML and CSS.

**POLAR** | DEVOPS

January 2014 - April 2014 | Toronto, ON

- Worked with Django for Polar's website and product backend.
- Created MySQL dump scripts in Python and SQL that run daily using cron.
- Wrote an IRC bot in Python to add useful features to the IRC chat.

## OPEN SOURCE WORK

**JENKINS** | CONTRIBUTING COMMUNITY MEMBER

March 2014 - Present | [jenkins.io](https://jenkins.io)

Fixed a bug in the Cobertura plugin that caused test result metrics to be incorrectly displayed to users.

## PERSONAL PROJECTS

**SPARK** | THIRD-PERSON HACK AND SLASH GAME

July 2016 - Present | Still in development!

Creating a third-person PC game in Unreal Engine 4 using both Blueprints and C++. Using Blender for modelling and Maya for animation.

**ANTICHESS** | CHESS GAME WITH CUSTOM AI

2012 - 2013 | [github.com/Tamini/AntiChess](https://github.com/Tamini/AntiChess)

Created a chess game in Java with a custom AI. AI implemented alpha-beta pruning and depth-first search to find the best moves. Each piece was assigned a point value and the AI determined the best move by looking at possible future board states and determining the most favourable outcome.