

ALEXANDRE GONTCHAROV

TECHNICAL SKILLS

Languages/Frameworks: [Python](#), [Java](#), [JavaScript](#), [C](#), [NodeJS](#), [AngularJS](#), [Bootstrap3](#), [HTML/CSS](#), [LaTeX](#)

Tools: [Git](#), [VirtualBox](#), [AWS](#), [Netbeans](#)

Software Engineering: [Scrum](#), [Requirements Analysis](#)

EXPERIENCE

Undergraduate Teaching Assistant, *University of Guelph*

Sep 2015 - April 2017

- Led laboratory sessions, teaching introductory and intermediate programming concepts using [C](#).
- Taught more complex concepts such as [Makefiles](#), [Valgrind](#) and [Git](#).
- Assisted in installing and debugging [Raspbian](#) and Debian running on [VirtualBox](#).

PROJECTS

Dialog System Compiler, *Personal Project*

- Built an IDE that translate simplified input language into an executable [Java](#) GUI program.
- Created an IDE [Finite State Machine](#) compiler written in [C](#) and a stand-alone compiler written in [Lex/Yacc](#).
- Front end designed in [Java](#) and connected to the IDE C compiler through [JNI](#).
- A [Bash](#) script is included which guides the user through the installation of Dialog System Compiler.

Wildebeest Chess AI, *Personal Project*

- Implemented [Artificial Intelligence](#) that generates a move for the next player given a starting state.
- Written in [Python](#) using the turn based [Minimax algorithm with Alpha-beta pruning](#).
- Searches the state tree for the next best move using [Iterative Deepening Search](#).

Artificial Neural Network, *Personal Project*

- Created a [Machine Learning](#) neural network based on the neural structure of the human brain.
- Compiled in Python with the Numpy library and trained through the [Backpropagation algorithm](#).
- Tested with more complex datasets such as the Iris dataset from the UCI Machine Learning Repository.

WellCat, *Group Project*

- Worked on the public web interface team for WellCat using [Node.js](#), [React](#), [jQuery](#) and [Bootstrap3](#).
- Performed [Analysis Requirements](#) and created a [UML Diagram](#) representation of the system.
- Operated under the Agile Framework [Scrum](#) and led the stand up meeting as [Scrum Master](#).

EDUCATION

Software Engineering Honours Program

2017

Bachelor of Computing, *University of Guelph*

ACHIEVEMENTS & EXTRA-CURRICULAR

Society of Computer Science, *Community Liaison*

Jan 2016 - April 2016

CUSEC, *Software Engineering Conference*

Jan 2017

University of Guelph Dean's list

April 2016

ADDITIONAL SKILLS

Fluent in French and Russian

Excellent communication skills

PADI Open Water Scuba Instructor

Emergency First AID Instructor