

Bowen Luo

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SKILLS

- Very experienced in object-oriented languages such as **C#, Python, & Java**
 - Working knowledge in **C, HTML, Javascript, & CSS**
 - Experienced in **Jira** (Agile), **Git** and version control
 - Familiar with tools such as **Pycharm, Visual Studio, & VS Code**
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INDIVIDUAL PROJECTS

- [Flappy Bird AI](#) & [Snake 2P](#) | **Java**
 - Built user-interactive Java projects in the game engine **Processing**
 - Applied an **evolutionary algorithm** to learn to play Flappy Bird
 - Used polymorphism and input processing to instantiate neural net information and modify program state during runtime
 - Simulated classical physics in object collision and gravity to illustrate AI improvement
 - [English Detection Neural Network](#) | **Python**
 - Developed a neural network from scratch in Python using the **Numpy** API to illustrate the results of machine learning on language recognition
 - Demonstrates **back-propagation** in learning algorithms using sigmoid activated perceptron layers
 - [Web Portfolio](#) | **HTML, CSS, JS**
 - Designed and developed an interactive web portfolio using Javascript and the **Bootstrap** API to accommodate user experience.
 - Displays all aforementioned and other projects at <https://plopor.github.io/>
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EXPERIENCE

- Junior Developer | *HelloGbye* www.hellogbye.ca *May 2019 to August 2019*
 - Researched and prototyped improvements (GRU, ELMo, Attention layers) to an existing ML model using **Keras** and **Tensorflow**
 - Wrote parsers and tokenizers for JSON and natural language in **C#** and **Python**
 - Generated C# code using Visual Studio's T4 text templates
 - Worked in an **Agile** workflow and presented in sprint plannings and daily standups
 - Watonomous | *Feedback Controllers Subteam* *January 2019 to April 2019*
 - Worked with a PID feedback control algorithm responsible for maintaining the path of the autonomous vehicle
 - Maintained the codebase on Matlab for the Feedback Controllers subteam
 - Hack the North | *Connect* <https://devpost.com/plopor> *September 2019*
 - Learned **Android Studio** and collaborated on a service in **Java** responsible for sending and receiving NDEF messages using NFC.
 - Prototyped the sending of images as URI using NFC
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EDUCATION

- University of Waterloo | *Pursuing a Bachelor's of Computer Science*
 - 3.7 GPA *Expected graduation: May 2023*