## Address
23-555 Raven Woods,
North Vancouver,
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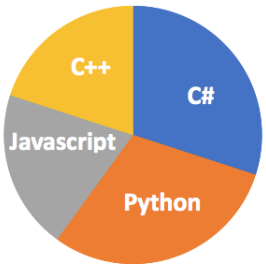
## Tel & Skype
+1 778 898 6639
andy qiu (Skype name)

## Mail
**andyqiu1@**
gmail.com

## Web & Git
andyqiu.com
github.com/andy-qiu1


## Programming




## OS Preference
**Windows** ★★★★★
**MacOS** ★★★★☆
**GNU/Linux** ★★★☆☆
**Unix** ★☆☆☆☆

## Languages
**English** ★★★★★
**Mandarin** ★★★★★
**Cantonese** ★★★★☆

## Interests
**Neural Networks** ★★★★★
**Game Development** ★★★★★
**Web Development** ★★★★☆
**Medical Software** ★★★★☆

# AndyQiu

Software Developer

## Experience

01/18 - Now **Co-op Software Developer** Canadian Nuclear Laboratories, Chalk River, Canada
Wrote python script to scrap instrument readings from website
maintained and improved a Windows software written in C#.

09/17 - 01/17 **Co-op Software Developer** BC Cancer Agency, Kelowna, Canada
Designed and developed Python script to parse data from clinical linear accelerator and motion capturer.
Designed and developed C# script to integrate four-dimensional Volumetric Modulated Arc Therapy(4D VMAT) does calculation using treatment planning system built-in API.
Designed and developed Python script to control the movement of clinical linear accelerator and calculated does before delivery. This is a novel approach and a conference paper have been written.

## Education

2014 - 2019 **Bachelor's Degree in Computer Science and Mathematics**
University of British Columbia, Vancouver, Canada
Study focus: Machine Learning, Database, Computer Vision, Computer Graphic.

2012 - 2014 **International Baccalaureate Diploma** Mulgrave School, West Vancouver, Canada
Higher level subjects: Mathematics, Physics, Chemistry, Chinese.
Standard level subjects: English, Economics

## Projects

01/17 - 04/17 **Predicting Lung Cancer with Machine Learning** Kaggle competition
Developed Python scripts utilizing transfer learning technique to classify CT images set and predict the probability of malignancy.
Cleaned (resized, zero-centered and normalized) CT dataset and passed the result to a pre-trained Convolution Neural Network called ImageNet, the output from the last fully connected layer of it was collected and used to train a random forest classifier.

01/17 - 04/17 **InsightUBC Website** Academic Project
Implemented a custom database in Javascript that support basic SQL functionality such as SELECT, FROM,WHERE, AND, OR, SORT BY, GROUP BY, MIN, MAX, AVG and SUM, and it operates on JSON files on disk
Implemented a server in Javascript that use the database above and provide the client with correct message and status code.
Implemented a website with Html that communicates with server to render charts dynamically.

03/17 - 04/17 **Tank! Game** Personal Project

Developed a 2.5D shooting game with Unity Engine and C# scripts following an online tutorial.
Developed script to control tank movement, camera movement and UI to display score.

02/17 **Pong Game** Personal Project

Designed and developed a classic Pong game in Unity Engine with scripted ball movement, scripted player movement and UI.

11/16 - 12/16 **Ray Tracer** Academic Project

Developed a Ray tracer in C++ without any external libraries.
Detected collision between ray and object based on different geometry categories(plane, triangular mesh, sphere) of objects.

07/15 - 08/15 **Mind the Gap Android App** Academic Project

Developed an Android application in Java displaying the location and real time information of the London Underground using online API.
Used Junit to test the program automatically.

11/17 **Autocorrelation between Two Signals** Work Project

Collected and parsed data from motor and motion capturer to create two signals.
Developed a C# program to autocorrelate this two signals despite the fact that they have different length, sampling rate, zero and amplitude.

11/17 **Generating Realistic Animation** Work Project

Generated animation in Maya and use Python script to assign control point to the animation dynamically based on the data from clinical linear accelerator.