Angad Kalra

Vancouver, BC   angadkalra.com
angadkalra94@gmail.com   github.com/angadkalra

Education

- **University of British Columbia** - Faculty of Science, 4th Year   September 2012 – May 2018
  Combined Major: **Mathematics and Computer Science**
- Python for Data Science + Data Science Essentials – edX   January 2017
- Machine Learning – Coursera & Stanford   January 2016 – August 2016

Technical Experience

Centre for Molecular Medicine and Therapeutics – Vancouver, BC   May 2017 – August 2017
Undergraduate Research Assistant
- Developing and applying statistical and computational models for integrating and interpreting diverse types of genomics data, with the ultimate goal of disentangling meaningful molecular associations for common and complex pathologies, such as neurodegenerative and psychiatric disorders.

Vision Critical Communications Inc. – Vancouver, BC   January 2016 – August 2016
Software Development Intern
- In the first four months, responsibilities were fixing defects, writing integration tests, improving test coverage in deployment pipeline and learning new technologies simultaneously. New technologies included ASP.NET MVC, C# and Visual Studio.
- In the last four months, fixing defects and writing tests continued. Additionally, developed in HTML5 and various JavaScript frameworks (Grunt, jQuery, Jasmine) to replace outdated Flash technology that existed in product.

Safe Software – Surrey, BC   January 2015 – April 2015
QA Analyst
- Primarily responsible for identifying potential improvements in their current automated testing system and designing new tests to expand their test coverage.
- Developed in Python 2.7 and interacted with multiple APIs such as GitHub and Amazon AWS.

Recent Projects (available on github.com/angadkalra)

Code The Change UBC (community of engineering students using their technical skills to drive social change)
- Verna J. Kirkness STEM Education Program is a local charity that we built a database & web app for in order to help them organize their data, approach donors for funding, and save their employees time and money. We used Python and Django for the web app, and MySQL for the database, all hosted on DreamHost.

Peak Predictor
- Implemented a deep CNN similar to the one described in this paper: http://www.biorxiv.org/content/early/2015/10/05/028399 using Python and Tensorflow. The DCNN is being used to predict and discover why a specific protein binds to a certain sequence of nucleotide base-pairs. Network has 3 convolutional layers and 2 fully connected layers, and uses batch normalization, ReLU, max pooling, and dropout.

Technical Skills

- Strong foundation in data structures and algorithms, discrete mathematics, and machine learning.
- Python 3.x, MATLAB, and Julia.
- Tensorflow.
- Fundamentals of web development using various JavaScript frameworks, HTML and CSS.