Jason Chin

Software Engineer & Data Scientist

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Experience

Deloitte Omnia AI - *Toronto, Canada*   *May 2019 – Aug 2019*
DATA SCIENCE INTERN

- Designed a solution to extract network threat mitigation using natural language processing (NLP) from vulnerability databases saving thousands of development hours.
- Aggregated a dataset of 750,000+ samples & trained a FastText classifier with 86% accuracy.
- Managed the development of an AI-powered highlight reel platform.

German Aerospace Center (DLR) - *Berlin, Germany*   *May 2018 – Aug. 2018*
UNDERGRADUATE RESEARCHER (TRANSPORTATION DIVISION)

- Awarded a RISE (Research Internship Science and Engineering) Germany Scholarship (9% of applicants).
- Developed a motion aware object detection model by integrating dense optical flow with state-of-the-art object detection neural networks, using Keras, Tensorflow, and the SciPy ecosystem.
- Built a pipeline for storing over 100,000 frames from multiple datasets and generating optical flow.
- Trials showed the model utilised the optical flow to improve tracking and detection in edge cases.

Condos.ca - *Toronto, Canada*   *May 2017 – Aug. 2017*
FULL STACK DEVELOPER & DATA ANALYST INTERN

- Trained a neural network image classifier to label images by which room of a house they best represent.
  - Iteratively trained multiple models on AWS EC2.
  - Saved $10,000 per year on machine learning services.
- Ported Python image service from a Flask web framework to Django and added new features:
  - Used perceptual hashing to match low resolution images to higher resolution images from another database.

Education

University of Western Ontario - *London, Canada*   *Sept. 2016 – May 2020*
SOFTWARE ENGINEERING - *Engineering Average of 84%, Dean's Honour List*

- Western Founders Network – *Director of Education*
  - Organized educational seminars on topics such as basic computer vision and web development.
- Western AI – *Founder & VP Projects*
  - Created and educated a community of 40+ students.
  - Led project management of AI focussed projects developed by students of Western AI.
  - Designed and delivered workshops on artificial intelligence and machine learning.

Projects & Awards

AI Royale – *Best Use of the STDLIB API Award, Hack Western 5*   *Nov. 2018*
A platform enabling users to program competing game AI. Python, Redis, and STDLIB.

Phormatics – *Most Startup-Viable Hack Award, HackNYU 2018*   *March 2018*
Implemented 2D pose detection for workout analysis. Python, OpenCV, and Tensorflow.

Gesture Recognition – *300+ ★ on GitHub*   *Jan. 2018*
Used Python, OpenCV and Keras to track the user's hand and classify multiple gestures.

Technical Skills

Programming Languages - Python, JavaScript, PHP, Java, C++, SQL, MongoDB, HTML, CSS, MATLAB
Data Science Libraries - Keras, Tensorflow, SciPy Libraries (Numpy, Pandas, Matplotlib), OpenCV 3 & 4, NLTK
Frameworks/Libraries - Laravel, Django, Flask, React JS/Native, Express, Docker