

Charlie Lin

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SKILLS

Machine / Deep Learning
Algorithms & Data Structures
Data Science & Analytics
Algorithmic Trading
Product Design & Management
Public Speaking
Full Stack Web Development

TECHNOLOGIES

LANGUAGES

Java • Python • C++ • C#
JavaScript • SQL • Matlab

MACHINE LEARNING

Tensorflow • Scikit-Learn • Keras
OpenCV • Pandas • XGBoost

WEB TECHNOLOGIES

NodeJS • React • AWS • Flask
Mongo • .NET • HTML • CSS

SYSTEMS

OSX • Linux • PC • Git • Bash

AWARDS

Top 10 Worldwide TechCrunch Disrupt
1st/1000 Hack the North (UWaterloo)
1st/400 + 3rd/500 Hack NYU 18/19
1st/130 Waterloo EngHack (ML)
1st/130 Shopify Case Competition
Top 20 /1000 CDTW HackerRank
Finalist /55 Airbnb Consulting Comp

EDUCATION

WESTERN UNIVERSITY

BESc - Software Engineering
April 2021 | London, ON

*Advanced Entry Opportunity to
Ivey Business School for a 5 year
Engineering & Business Dual Degree*

COURSEWORK

Algorithms (UC San Diego)
Machine Learning (Stanford)
Deep Learning (Google)
Intermediate C++ (Microsoft)

ACTIVITIES

Private Pilot License Candidate
Provincial Soccer Referee & Mentor
RHHS Varsity Soccer Captain
Canadian National Lifeguard
RCM Level 8 Pianist

EXPERIENCE

GOOGLE | Software Engineering Intern

Incoming Summer 2019 | Mountain View, CA

- Machine Learning models on Google Ads - Tensorflow, Python, C++, Go

WESTERN UNIVERSITY | Machine Learning Researcher

June 2018 – Present | London, ON

- Worked under Prof. J Yang to perform **topology optimization** on hyperbolic acoustic metamaterials using a pixel-wise **image segmentation** method
- Implemented a **convolutional neural net** in **Tensorflow & Keras** that correctly optimized macroscopic quantum wave propagation with > 99% accuracy

EMPLOYO.IO | Co-Founder, Lead Engineer

June 2018 – Present | Toronto, ON

- Launched a **MEAN stack** intern exclusive job board with an INSEAD mentor
- Engineered **rule-based elasticsearch** algorithm to save HR 90 minutes / hire
- Guided developer team to create a **Word2vec** job recommendation engine

FIRMWATER INC | Full Stack Developer Intern

May 2018 – August 2018 | Toronto, ON

- Crafted a **React.js & RESTful API** system using **ES8** modular programming to automate client processing which cut monthly accounting time by 32%
- Deployed custom Youtube player in a **.NET MVC LMS** (e-learning platform) with **SQL** stored procedures & **Node.js** wrapper for user progress tracking

NORTH SOUTH MANAGEMENT | Business Data Analyst Intern

January 2018 – April 2018 | Toronto, ON

- Performed strategy pitches for TSXV: BEER to bolster upcoming IPO value
- Reduced retail predictive model error by 40% with **PCA & ridge regression**
- Advised niche wine production (8% CAGR) via **sklearn feature engineering**
- Clustered 5000 product reviews with **tf-idf & k means** to drive sales strategy

PROJECTS

OURBLOCK 🌀 | Python / AWS / Solidity / D3

- Pitched serverless community safety solution at **Disrupt SF18** to thousands
- Trained **support vector machine** to classify & rank crime with 97% accuracy
- Applied **AWS Lambda, Ethereum, & Google Maps** for real time data sharing

PHORMATICS 🌀 | Jupyter Notebook / Flask

- Computer vision gym trainer using **pose estimation** to critique workout form
- Designed custom **cloud computing flask** architecture with **WebRTC** stream

BATTLE TETROMINO 🌀 | Java

- Applied supervised **genetic algorithms** on a multiplayer websocket Tetris AI

LEADERSHIP

MUSTANG CAPITAL | Quant Trading Analyst Since October 2018

- Developed smart beta trading strategies using **Python** for a \$230,000 fund

FOUNDERS NETWORK | VP Education Since September 2017

- Lead executive team in writing curriculum for machine learning workshops