

Contact

www.linkedin.com/in/ivanthinks
(LinkedIn)
ivanzhou.org (Personal)
medium.com/@ivanthinks (Blog)

Top Skills

Data Engineering
Cloud Computing
Deep Learning

Certifications

Natural Language Processing in TensorFlow
Device-based Models with TensorFlow Lite
Deep Learning Specialization
Wharton School of Business - Financial Accounting
Structuring Machine Learning Projects

Honors-Awards

Dean's Honor List
2nd Place in RBC Innovative Design Competition
2nd Place in ASA DataFest Competition by Google
Undergraduate Student Research Award
Centennial Thesis Awards

Publications

Aesthetic Features for Personalized Photo Recommendation
Uber Driver Schedule Optimization
Nonlinear Hybrid Planning with Deep Net Learned Transition Models and Mixed-Integer Linear Programming

Ivan Zhou

Machine Learning Engineer at Landing AI
San Francisco

Summary

Machine Learning Engineer by training and photographer by heart. I love computer vision in many ways.

Experience

Landing AI
Machine Learning Engineer
November 2018 - Present (2 years 2 months)
San Francisco Bay Area

- Implement the state-of-the-art deep learning algorithms to solve defect detection problems in manufacturing at >99% precision and recall. I led the team to win a client-host competition and outperformed teams from Baidu, Alibaba, and Petuum by a significant margin in two weeks.
- Deploy end-to-end inference pipeline with multiple machine learning models to Nvidia Jetson edge devices. Optimize algorithms to run at milliseconds latency to provide real-time inference results at the manufacturing lines.
- Develop automatic provisioning, CI/CD, OTA deployment, and monitoring solutions so that the machines operate in factories at a 24/7 schedule with minimum downtime.
- Developed the first labeling book for data collection, the first camera solution for data collection in extreme environments, the first edge-device solution, and the first end-to-end usability test for the Machine Learning platform. Be able to deliver exceptionally high-quality results under high pressure and great ambiguity.

Shopify
10 months

Machine Learning Engineer, Personalization and Discovery Algorithm
June 2018 - October 2018 (5 months)
Toronto, Canada Area

- Image Search and Personalization in production

- End-to-End data science support for a fast-growing photo marketplace (Shopify's Burst), from setting up data infrastructure to algorithm implementation and product analytics
- Machine Learning research: publication in ACM RecSys 2018

Machine Learning Engineer, Marketing Technology

January 2018 - May 2018 (5 months)

Toronto, Canada Area

- Develop recommender systems in production with Spark and Hadoop System.
- Apply the state-of-the-art machine learning algorithms to build the IQ system in Shopify.

University of Toronto

Research Assistant on Deep Learning

August 2016 - July 2018 (2 years)

Toronto, Canada Area

- Published a paper in IJCAI2017 on non-linear planning with Deep Net as a co-author.
- Apply Neural Network and Mixed-integer Linear Programming in large scale system planning.
- Apply Deep Autoencoder in unsupervised anomaly detection in the domain of Cybersecurity.
- Supervised by Professor Sanner in the Data Driven Decision Making Lab.
- Received Undergraduate Summer Research Award from NSERC.

Mozilla

Capstone Student, NLP

September 2017 - April 2018 (8 months)

Toronto, Canada Area

- Developed an end-to-end user feedback analytics engine for Mozilla Firefox team to process thousands of users feedbacks in real time, with functions including translation, sentiment analysis, categorization, and visualization.
- The tool has been deployed in Mozilla's internal server and used by global Mozilla employees.

500px

Deep Learning Research Intern - Recommender System

August 2017 - April 2018 (9 months)

Toronto, Canada Area

- Develop machine learning systems to recommend 500px users with photos that they will most likely to enjoy with.
- Implement a variety of state-of-the-art recommender system algorithms, including K-NN, SVM Matrix Factorization, LRec, and Linear FLOW. Improve the performance through techniques like temporal decay.
- Develop a novel algorithm to quantify photos' visual features and embed them into the recommender system.

Bell

Business Intelligence Consultant

May 2016 - July 2016 (3 months)

- Analyzed business processes in Customer Operations and developed a solution with \$14 million net revenue increase over 5 years.
- Identified inconsistency in business process and led a process change that would bring a net benefit of \$400K in one year
- Worked with large data volumes efficiently using SAS and SQL to create customer segmentation algorithm, prediction models for customer behavior, and operations process optimization.
- Provided services to over 200 Bell customers on phone and develop strategies to reduce the Average Calling Time by 58% and improve Customer Feedback Rate by 94%

Dyson

Sales Analyst, Business Intelligence

May 2015 - April 2016 (1 year)

Toronto Canada

- Develop sales forecast and optimize strategies for the national Business Development Team based on market analytics
- Designed the Evaluation Metrics for distributors based on Salesforce and SAP data, optimized national distribution network based on sales strategies, and drove up sales in distributors by 119%.
- Researched on potential vertical markets for Dyson Airblade hand dryers, and generated over 3,000 high quality leads through data mining.
- In collaboration with UK and US teams, apply expertise in Operation Research and consulting skills, redesign the process of CRM and Sales Cycle Development.

Digital Trinity Labs

Co-Founder, Chief Data Scientist

April 2015 - March 2016 (1 year)

- Build up connection between young professional in colleges and local start-ups community. Facilitate the exchange of product ideas, industrial insight, and network intelligence.
- Inspire fellows to get hand-on experience in Data Science, UI/UX Design, and Web/App Development through professional project development for clients.
- Actively initiate and engage in long term collaboration with local startups across industries, including but not limited to: Crowdfunding, P2P Lending, Social Ventures, and Game Engine Development..
- Deliver professional work in Front-End, Back-End, Apps Development, Database Management, Data Visualization, and Operation Management.

Westcan Yacht Club Inc

Business Analyst

June 2014 - August 2014 (3 months)

- Set up CRM system, recording customers' preference, history of maintenance, and potential interest in a new purchase, to facilitate data-based decision making and execution of sales team.
- Assist Canadian Sail & Power Squadron and International Yacht Training Worldwide (IYT) to provide customers standard IYT yacht courses with certifications.

EXCITE2014

Co-Chair - Entrepreneurship Conference

October 2013 - March 2014 (6 months)

Toronto, Canada Area

- Led a small conference committee to bring the largest entrepreneurship conference at the University of Toronto to life, benefiting 500 students and young professionals and generated over \$16,000 in revenue.
- Featured the VP Public Affairs and Communications of Coca-Cola, CTO of Microsoft Canada, and Institute Director of Toronto Rehabilitation Institute.
- Organized an internship-guaranteed business case competition in collaboration with Toronto Rehabilitation Institute of University Health Network, attracting 35 student teams to compete
- Executed an aggressive marketing plan and successfully sold all 500 tickets within three weeks
- Outreached professors in Engineering, Computer Science, and Rotman Commerce to promote our conference among targeted students.
- Oversee the logistic and operation of the conference.

Model United Nations Club in High School Attached to the Shanghai Normal University

Founder, President

September 2011 - September 2012 (1 year 1 month)

- Started up my own Model United Nations (MUN) Club in my secondary school.
- Recruit club members, trained them of the knowledge and skills of negotiation and communication in MUN meetings.
- Approach local MUN communities for networking and educational seminars.
- Lead my team to participate in three provincial MUN meetings and receive honour as the best delegate team twice.
- Organize one provincial MUN meetings by our own.

Education

Stanford University

Graduate Certificate, Artificial Intelligence · (2019 - 2021)

University of Toronto

Engineer's Degree, Industrial Engineering, Business/Commerce, General · (2013 - June 2018)

Udacity

Certificate, Self-Driving Car Engineering · (2016 - 2017)

Johns Hopkins Bloomberg School of Public Health

Certificate, Data Science Specialist · (2014 - 2015)