

Henry (Hanxiang) Pan

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Education

University of Pennsylvania

Philadelphia, USA

MASTER OF SCIENCE IN ENGINEERING, COMPUTER AND INFORMATION SCIENCE (CIS)

Aug. 2019 - Exp. May 2021

- Relevant Coursework: Machine Learning, Reinforcement Learning, Computer Vision, Distributed Systems

University of Western Ontario | Richard Ivey School of Business

London, Canada

BACHELOR OF SCIENCE, HONORS SPECIALIZATION IN COMPUTER SCIENCE AND MINOR IN ECONOMICS

Sept. 2014 - Apr. 2016

(DISCONTINUED) BACHELOR OF ARTS, HONORS BUSINESS ADMINISTRATION (HBA)

Sept. 2011 - Apr. 2014

- Relevant Coursework: Analysis of Algorithms, Artificial Intelligence, Computer Architecture, Human-Computer Interaction

Experience

ViewFin

Toronto, Canada

SOFTWARE ENGINEER

May 2019 - Aug. 2019

- Designed and implemented core trading platform modules including data processor, indicator manager and agent in a service-oriented architecture
- Established a websocket communication pipeline both among internal components and with external services using Python
- Developed a multithread backtesting tool in Python, continuous integration (CI) pipeline using Docker and a dashboard for tracking live and back-testing trading performance using React and Node.js

Paymentus

Toronto, Canada

APPLICATION ENGINEER (TEAM LEAD)

Nov. 2017 - Aug. 2018

- Designed and implemented generic UI form components in React and API/microservices in Node.js for the biller self-onboarding feature
- Designed the first end-to-end (E2E) testing framework and implemented core libraries for developing data-driven tests in Node.js and containerized the testing environment with Docker for the CI pipeline
- Analyzed 100+ application feature flows for over 1000+ generic and custom billers with emphasis on complexity and reusability to identify areas for component testing and to create backlogs for E2E tests
- Led the test engineering team scrum meetings, planned backlog stories and provided mentorships to other engineers

Citigroup (Velocity Desktop Trading Application Team)

Toronto, Canada

SOFTWARE DEVELOPER / TECHNOLOGY ANALYST

Jun. 2016 - Nov. 2017

- Implemented and enhanced server-side search features for all Interest Rate Swaps (IRS), Bonds and internal financial products in Java and Spring
- Investigated and implemented the cache architectural change from a peer-to-peer (P2P) model to an efficient client-server model, reduced component startup-time and latency by 9X and mitigated deadlocks
- Migrated a legacy data source for 300+ IRS products and added support for 200+ non-benchmark IRS products by redesigning field mappings and by implementing reference data enhancements to support consistent order flow for downstream components
- Developed an Electron-based configuration management tool that allows for selecting, finding, and filtering properties in one centralized search bar

Bell Canada

Toronto, Canada

BUSINESS INTELLIGENCE ANALYST

Summer 2015

- Reallocated technicians to different job types based on performance quartiles, which reduced monthly churn rate for the internet and home-phone channels by 29% and 17%, respectively
- Discovered factors to reduce external noise and statistical bias through technician shadowing and used regression to determine true drivers for field-related churn, ultimately used as reports for field managers
- Modeled workload distribution to determine the cutoff-time of "Same-day/Next-day" repair service, reducing miss-commitments by 54 tickets/day

Deloitte (Consulting Practice)

Toronto, Canada

BUSINESS TECHNOLOGY ANALYST

Summer 2014

- Implemented SAP system enhancements and developed user acceptance tests for 10 client requests in Java
- Performed vendor analysis, market research, and client scans to develop the firm's Sourcing and Procurement practice capabilities in Canada
- Revamped a VBA internal visualization tool to analyze and develop practitioners' brand within the firm

Projects & Research

Food Image Recognition Thesis

UNIVERSITY OF WESTERN ONTARIO

- Surveyed various image data normalization and feature extraction techniques including edge detection, bag of features, and Convolutional Neural Networks (CNN) to improve overall image recognition accuracy
- Achieved a 10-class image classification top-1 error of 1.93% using CNN and Support Vector Machine (SVM) with cross-validation and parameter-tuning

HackerNews Post Tagger

PERSONAL PROJECT

- Implemented a Natural Language Processing (NLP) pipeline including data-cleansing, parameter-tuning, and post-tagging using Latent Dirichlet Allocation (LDA) in Python for 10 million posts/comments and 25 different tags
- Evaluated Reddit's dataset as a transfer learning opportunity for supervised learning using subreddits as tags
- Designed and implemented the user interface for interacting with the data, and REST APIs to communicate with the database