

HENRY (HANXIANG) PAN

3504 Hurontario Street
Mississauga ON, Canada

🏠 henrypan.com
🐙 github.com/workofart

+1 (647) 674-8081
hanxiangp@gmail.com

SKILLS

General:	Java, Spring, Bash, C
Web Technologies:	Node.js, React.js, Express.js, Pug/Jade, JavaScript, HTML/CSS
Databases:	MySQL, Oracle SQL, PostgreSQL, MongoDB
Data Analysis/Machine Learning:	Python, MATLAB, VBA, SAS, Excel
Tools:	Git, Gradle, NPM, Jenkins, Sonar, TeamCity, uDeploy

WORK EXPERIENCE

Citi (Velocity Desktop Trading System), Toronto, Canada

June 2016 - Present

Software Developer / Technology Analyst

- Implemented server-side search/sort features for all Interest Rate Swaps (IRS), Bonds and internal financial products through creating context-based queries and designing user-friendly search keys based on commonly used trader terms
- Led the investigation and implementation of a cache architectural change from peer-to-peer to an efficient Wide-Area-Network (WAN) model, reduced component startup-time and latency by 9X and mitigated deadlocks
- Onboarded non-benchmark IRS products to the request for quote (RFQ) order flow by implementing cache write actions, designing search indices, and publishing reference data to containers for UI to subscribe
- Migrated a legacy data source for 300+ IRS products by redesigning comprehensive field mappings and by implementing reference data enhancement actions to maintain consistent order flow for downstream components

Bell Canada, Toronto, Canada

Summer 2015

Business Intelligence Analyst

- Rebalanced technicians' workload based on performance quartiles with different product and tenure combinations, which reduced monthly churn rate for the Internet and Home-phone channels by 29% and 17%, respectively
- Reduced external noise and statistical bias (multicollinearity) using regression and statistical adjustments to determine true drivers for field-related churn, ultimately used as reports for field managers
- Modelled distribution of workload by time of day and product type to determine the feasibility of "Same-day/Next-day" repair service offering and cutoff time, reducing miss-commitments by 54 tickets per day
- Predicted impact of network congestion to improve customer experience using repeat rate and other factors

Deloitte (Consulting Practice), Toronto, Canada

Summer 2014

Business Technology Analyst

- Estimated and implemented SAP system enhancements and developed user acceptance tests for 10 client requests
- Performed vendor analysis, market research and client scans which contributed to the long-term initiative of developing the firm's Sourcing and Procurement practice capabilities in Canada
- Revamped an VBA internal branding visualization tool to analyze and develop practitioners' brand within the firm

Part-Time Assistant

- Assisted in a two-day performance management engagement through converting employee feedback data in 33 spreadsheets to individual 360-degree analysis PowerPoint decks delivered to employees at a Chinese bank
- Organized the Capability for Performance (C4P) event by conducting background research on clients and by taking interview notes to ensure the relevance and quality of the event to all attendees, resulting in attendance of over 50 companies

PROJECTS**HackerNews Post Tagger****January 2017 – Present***News post genre tagging based on submission content and user comments with additional interesting statistics*

- Developed a full Natural Language Processing (NLP) pipeline from data cleaning, tokenization, word stemming/vectorization, parameter tuning, and finally tagging the posts using unsupervised-learning techniques such as Latent Dirichlet Allocation (LDA) in Python
- Experimented with a Reddit dataset as a transfer learning opportunity for supervised learning, where subreddits are the correct tags
- Designed and developed an interactive front-end experience using React.js, JavaScript and HTML/CSS
- Designed REST APIs in Express.js for data retrieval and distributed messaging between the web server and Python services that are used for computational-intensive operations
- Defined document structure in MongoDB for NLP tasks and the website with optimized indices and queries

Configuration Management Tool, Citi**March 2017 – June 2017***Merges relevant properties into one view for view/edit, allowing developers to focus on “what” instead of “where”*

- Crafted an interactive user experience using React.js, Node.js, JavaScript, HTML/CSS
- Integrated Electron to support cross-platform (Windows/Mac) capability for native desktop experience
- Implemented two modes in separate Electron windows - a fully functional editor, and a mini lookup tool where selecting, finding, and filtering properties are all done through one centralized search bar
- Throttled rendering of actively-edited text to eliminate visible lag caused by excessive re-rendering

Stock Trading Simulator**September 2016 – November 2016***A trading simulator streaming near real-time market prices in a risk-free environment for users to learn and strategize*

- Designed the website layout and developed the front-end using Jade/Pug, JavaScript and HTML/CSS
- Created 6 scalable database schemas/tables to support portfolio management, user authentication, transaction analysis and other tasks in PostgreSQL
- Designed REST APIs for DB create/read/update/delete (CRUD) operations, and price fetching using Express.js

Food Image Recognition Thesis, Western University**September 2015 – April 2016**

- Achieved a 10-class top-1 error of 1.93% using Convolutional Neural Networks (CNN) and Support Vector Machine (SVM) with self-tuned parameters
- Researched and analyzed over 10 leading computer vision papers and implemented different feature extraction, preprocessing, training and classification models in MATLAB to boost image recognition accuracy

EDUCATION**Western University, London, ON****2014 – 2016***Bachelor of Science, Honors Specialization in Computer Science, Minor in Economics*

- Major GPA 3.91, Dean's Honors List 2014 - 2016

Ivey Business School, Western University, London, ON**2013 - 2014***Bachelor of Arts, Honors Business Administration (HBA)*

- 1st Place at The 18th Boston Consulting Group Ivey HBA Case Competition
- Completed first two years of Specialization in Economics program, Dean's Honor List 2011-2013