HENRY (HANXIANG) PAN

3504 Hurontario Street
Mississauga ON, Canada

⌂ henrypan.com
○ github.com/workofart

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

SKILLS

Languages:	Java, JavaScript, HTML5, Python, SQL, Bash, Pug/Jade, MATLAB, VBA
Frameworks/Libraries:	Spring, Node.js, React.js, Express.js, Puppeteer, Jest, Mocha.js, Chai.js
Tools:	Git, Docker, Gradle, NPM, Jenkins, Sonar, TeamCity, uDeploy, Excel

WORK EXPERIENCE

Paymentus | Application Engineer / Team Lead   Toronto, Canada | November 2017 – Present

- Designed the first end-to-end (E2E) testing framework and implemented core libraries for developing data-driven E2E tests using Node.js while leveraging Puppeteer, Jest, Mocha and Chai
- 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 automation test engineering team scrum meetings, planned backlog stories based on regular retrospectives with the team and major stakeholders and provided mentorships for other engineers
- Containerized the E2E testing environment in Docker to be used in the Continuous Integration (CI) pipeline

Citi | Software Developer / Technology Analyst   Toronto, Canada | June 2016 – November 2017

Portfolio Risk Management (PRISM) Application Team

- Redesigned and implemented a new service to run synchronization tasks in parallel to sync in-memory KDB tables with the archive DB on intraday equity data, reducing task runtime by 30%

Velocity Desktop Trading Application Team

- Implemented server-side search features for all Interest Rate Swaps (IRS), Bonds and internal financial products
- Investigated and implemented the cache architectural change from a peer-to-peer (P2P) model to an efficient Wide-Area-Network (WAN) model, reduced component startup-time and latency by 9X and mitigated deadlocks
- Implemented 200+ non-benchmark IRS on the order management component for Request for Quote (RFQ)
- Migrated a legacy data source for 300+ IRS products by redesigning field mappings and by implementing reference data enhancement actions to support consistent order flow for downstream components

Bell Canada | Business Intelligence Analyst   Toronto, Canada | 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
- 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 workload distribution to determine the feasibility of "Same-day/Next-day" repair service offering and cutoff time, reducing miss-commitments by 54 tickets per day

Deloitte (Consulting Practice) | Business Technology Analyst   Toronto, Canada | Summer 2014

- Implemented SAP system enhancements and developed user acceptance tests for 10 client requests
- 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

McKinsey & Company | Part-Time Assistant   Beijing, China | Summer 2013
- Analyzed performance management data and delivered 30+ 360-degree analysis PowerPoint decks to the client
- Organized the Capability for Performance (C4P) event with client research resulting in attendance of 50+ companies

PROJECTS

Cryptocurrency Trading Bot   September 2017 – Present
Fully automated technical-analysis trading bot
- Designed the architecture and implemented all components including WebSocket data streaming from Bitfinex/Binance Exchange, algorithmic trading based on technical indicators, ticker-price/candlestick/orderbook data processors, DB operators, and back-testers from scratch using Node.js
- Achieved an average daily return rate of 1.1% over the span of 3 weeks with an average of 46 trades/day
- Implemented a trade visualization tool to assist back-testing of trading strategies using React.js and HTML5

HackerNews Post Tagger   January 2017 – July 2017
News post genre tagging based on submission content and user comments with additional interesting statistics
- Implemented a full Natural Language Processing (NLP) pipeline from data-cleaning to parameter-tuning to tagging the posts using Latent Dirichlet Allocation (LDA) in Python
- Evaluated the Reddit dataset as a transfer learning opportunity for supervised learning using subreddits as tags
- Designed the user interface and REST APIs for data retrieval and distributed messaging between the web server and Python services that are used for computational-intensive operations

Configuration Management Tool   Citi | March 2017 – June 2017
A tool that provides a unified view of relevant property files, allowing developers to focus on "what" instead of "where"
- Implemented an Electron-based fully functional editor, and a mini lookup tool where selecting, finding, and filtering properties are all done through one centralized search bar using React.js and HTML5

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 and developed the user interface, REST APIs and created 6 scalable database schemas/tables to support portfolio management, user authentication, transaction analysis in PostgreSQL

Food Image Recognition Thesis   Western University | September 2015 – April 2016
- Achieved a 10-class image classification top-1 error of 1.93% using Convolutional Neural Networks (CNN) and Support Vector Machine (SVM) with self-tuned parameters derived from 10 leading computer-vision papers

EDUCATION

Western University | *Major GPA 3.91*   London, Canada | 2014 – 2016
Bachelor of Science, Honors Specialization in Computer Science, Minor in Economics

Ivey Business School, Western University   London, Canada | 2011 – 2014
(Discontinued) Bachelor of Arts, Honors Business Administration (HBA)
- Completed first two years of Specialization in Economics program, and third year in the HBA program

AWARDS

- Rising Star - Outstanding performance on the Velocity Desktop Application Team (1/20)   Citi | 2017
- 1st Place at 18th Boston Consulting Group Ivey HBA Case Competition (1/80)   Ivey Business School | 2013
- Dean's Honors List   Western University | 2011 – 2016