

Proficient in a variety of programming languages and technologies, I am a skilled software engineer and web developer with experience in data analysis and artificial intelligence. Seeking a challenging and rewarding software engineering position where I can use my technical expertise to drive innovation and growth.

Work Experience

AltoSante <i>Digital Health Venture Studio</i>	Business & Technical Analyst Calgary, Alberta	Sep 2022–Present
<ul style="list-style-type: none">Working part-time along my studies to provide business and technical support for AI driven healthcare startupsDeveloped valuation models for clients to determine what amount of capital is suitable at different funding stagesProviding software development support to companies such as integrating AI models into production environments		
Precision Nutrition <i>Nutrition Certification Platform</i>	Contracted Data Analyst Toronto, Ontario	June 2022–Sept 2022
<ul style="list-style-type: none">Tailored a recommendation on where PN should make investments in terms of their long term marketing strategyScraped data from Tiktok, Instagram, Youtube and Reddit using Python and Selenium to determine traffic trendsExecuted a cross platform keyword analysis using google trends and platform user data		
CIBC <i>Digital Analytics Department</i>	Data Analytics & Integration Co-op Toronto, Ontario	Summer 2022
<ul style="list-style-type: none">Documented and visualized the data architecture of the analytics team including data sources, flows, and outputsLead a team of three co-op students and re-designed the web portal that displays dashboards for other teams within the bank using Javascript, Angular, PHP and SQLDesigned and documented a github workflow that is now used by the team to track and manage changes to codeCollected and analyzed data using SAS to investigate rising re-registrations on CIBC's website, made a recommendation for a solution to executives at the bank which was accepted and initiated		
CIBC <i>Web Development Team</i>	Web Developer Co-op Toronto, Ontario	Summer 2021
<ul style="list-style-type: none">Developed and tested various web pages, maintaining up to date content on CIBC's front-endDesigned a web form validation library which saved ~300 lines of javascript code for each form it was implementedCollaboratively developed code using Github in an agile team of experience engineers		

Education

Bachelor of Engineer Science, Software Engineering <i>University of Western Ontario GPA: 4.0, Dean's Honour List</i> Completed coursework: Database Management, Web Development, Software Project Management, Networking, Software Design, Linear Algebra, Calculus II & III, Data Structures & Algorithms, Statistics, Discrete Math, Scripting	Expected April 2024
Bachelor of Arts, Honours in Business Administration <i>Ivey Business School GPA: 3.7, Dean's Honour List</i> Completed coursework: Strategy, Marketing, Communications, Operations, Finance, Decision making with Analytics, Accounting Fundamentals, Leveraging Information Technology	Expected April 2024

Technologies and Languages

- Languages: *Python, JavaScript, HTML/CSS, Java, C#, SAS*
- Technologies: *SQL, Git, Excel, Heroku, AWS, MongoDB, REST APIs, Netlify, Wordpress, Jupyter Notebook*
- Frameworks/Libraries: *Express.js, React, Flask, NumPy, Pandas, Scikit-learn, Mongoose*

Projects

Deepstone Capital Management

Summer 2021 - Summer 2022

Quantitative AI Investment Startup that I Co-founded

- Collected stock price and financial data on 10,000 companies over a 25 year time frame for training data
- Created a system for continuously pulling daily stock data from various API's into a Mongo database
- Tested various machine prediction algorithms to predict stock returns such as random forest and neural networks
- Evaluated prediction models and feature sets using correlation tests and residual analysis
- Analyzed performance of portfolios created from model predictions using sharpe ratios, average returns, and price volatility compared to the S&P 500 companies and randomly generated portfolios
- Implemented a web app using the MERN stack for users to see and interact with stock data

View more projects in my portfolio: jackscochran.com

Extracurricular Activities & Interests

Western Men's Varsity Volleyball

Sept 2019 - Present

- Balanced 30 hours per week of team activities with full engineering and business course load, achieving Academic Canada each year
- Learned how to take and give constructive feedback and apply it to improve myself and the team
- Engaged in deep analysis of competitors weekly through review of film and statistics

Harvard's CS50 Online Courses

Summer 2020 - Summer 2021

- Completed online courses Intro to Computer Science, Intro to Artificial Intelligence with Python and Web Development with Python and Javascript

Western AI Club

Winter 2020

- Gained experience implementing basic machine learning algorithms with supervised learning techniques such as regression, decision trees, and neural networks
- Built a house price prediction model based on attributes such as square footage that had an r squared value of 88%

Guitar & Music

2014-Present

- Have played guitar for 6 years, performing at local restaurants in my hometown
- Grew up playing music completing my level 8 Royal Conservatory of Music Exams for Piano
- Learned Trumpet, Bass, Percussion, and Saxophone in High School for the Calgary Marching Band