

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

<b>AltoSante</b> <i>Digital Health Venture Studio</i>	<b>Business &amp; Technical Analyst</b> Calgary, Alberta	<b>Sep 2022–Present</b>
<ul style="list-style-type: none"><li>Working part-time along my studies to provide business and technical support for AI driven healthcare startups</li><li>Developed valuation models for clients to determine what amount of capital is suitable at different funding stages</li><li>Providing software development support to companies such as integrating AI models into production environments</li></ul>		
<b>Precision Nutrition</b> <i>Nutrition Certification Platform</i>	<b>Contracted Data Analyst</b> Toronto, Ontario	<b>June 2022–Sept 2022</b>
<ul style="list-style-type: none"><li>Tailored a recommendation on where PN should make investments in terms of their long term marketing strategy</li><li>Scraped data from Tiktok, Instagram, Youtube and Reddit using Python and Selenium to determine traffic trends</li><li>Executed a cross platform keyword analysis using google trends and platform user data</li></ul>		
<b>CIBC</b> <i>Digital Analytics Department</i>	<b>Data Analytics &amp; Integration Co-op</b> Toronto, Ontario	<b>Summer 2022</b>
<ul style="list-style-type: none"><li>Documented and visualized the data architecture of the analytics team including data sources, flows, and outputs</li><li>Lead 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 SQL</li><li>Designed and documented a github workflow that is now used by the team to track and manage changes to code</li><li>Collected 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</li></ul>		
<b>CIBC</b> <i>Web Development Team</i>	<b>Web Developer Co-op</b> Toronto, Ontario	<b>Summer 2021</b>
<ul style="list-style-type: none"><li>Developed and tested various web pages, maintaining up to date content on CIBC's front-end</li><li>Designed a web form validation library which saved ~300 lines of javascript code for each form it was implemented</li><li>Collaboratively developed code using Github in an agile team of experience engineers</li></ul>		

## Education

<b>Bachelor of Engineer Science, Software Engineering</b> <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	<b>Expected April 2024</b>
<b>Bachelor of Arts, Honours in Business Administration</b> <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	<b>Expected April 2024</b>

## Technologies and Languages

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- 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, Mongoose, NumPy, Pandas, Scikit-learn, Tensorflow*

## Projects

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### 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](https://jackscochran.com)

## Extracurricular Activities & Interests

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### 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