Toronto, Ontario
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Jack Cochran

jackscochran.com
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Proficient in a variety of programming languages and technologies, I am a skilled software engineer and data scientist with experience in companies ranging from enterprises to startups. With a passion for everything tech, I am seeking a challenging and interesting software engineering position where I can use my technical expertise to drive innovation and growth.

Work Experience

AltoSante   **Software Developer & Business Analyst**   **Sep 2022–Present**
Digital Health Venture Studio   Calgary, Alberta

- Working part-time along my studies to provide business and technical support for AI driven healthcare startups
- Developed valuation models for clients to determine what amount of capital is suitable at different funding stages
- Providing software development support such as integrating AI models into production environments

Precision Nutrition   **Contracted Data Scientist**   **June 2022–Sept 2022**
Nutrition Certification Platform   Toronto, Ontario

- Tailored a recommendation on where PN should make investments in terms of their long term marketing strategy
- Scraped data from Tiktok, Instagram, Youtube and Reddit using Python and Selenium to find keyword traffic trends
- Executed a cross platform keyword analysis using google trends and platform user data

CIBC   **Data Analytics & Integration Co-op**   **Summer 2022**
Digital Analytics Department   Toronto, Ontario

- Documented and visualized the data architecture of the analytics team including data sources, flows, and outputs
- 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
- Designed and documented a github workflow that is now used by the team to track and manage changes to code
- 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

CIBC   **Web Developer Co-op**   **Summer 2021**
Web Development Team   Toronto, Ontario

- Developed and tested various web pages, maintaining up to date content on CIBC's front-end
- Designed a web form validation library which saved ~300 lines of JavaScript code for each form it was implemented
- Collaboratively developed code using GitHub in an agile team of experience engineers

Education

Bachelor of Engineer Science, Software Engineering   **Expected April 2024**
University of Western Ontario | GPA: 4.0, Dean's Honour List
Completed coursework: Database Management, Web Development, Software Project Management, Networking, Software Design, Linear Algebra, Calculus II & III, Data Structures & Algorithms, Statistics, Discrete Math, Scripting

Bachelor of Arts, Honours in Business Administration   **Expected April 2024**
Ivey Business School | GPA: 3.7, Dean's Honour List
Completed coursework: Strategy, Marketing, Communications, Operations, Finance, Decision making with Analytics, Accounting Fundamentals, Leveraging Information Technology

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

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