**SARTHAK JAIN – Cover Letter**

*Aspiring software engineer, eager to learn cutting-edge technologies to tackle real-world challenges and deliver meaningful solutions!*

**EDUCATION**

**University of Western Ontario – Bachelor of Software Engineering (2022-26)**

* First year GPA - 8.79/10
* Relevant Courses – Programming Fundamentals (Java), Linear Algebra (Matlab)
* Activities – Basketball Intramurals, Sunstang Solar Car club member, Western Rec

**Earl Haig Secondary School – Ontario Secondary School Diploma (2020-22)**

* 12th Grade Average – 93% , 100% in Calculus and Programming
* Relevant Courses – Introduction to Programming (C++), Mathematics of Data Management, Financial Principles – Investments, Accounting and More
* Activities – Earl Haig chess club and Earl Haig programming club member

**WORK EXPERIENCE**

**OmniCard Financial Services, Noida, Uttar Pradesh, India (May - Sep 2023)**

*Interned as a Back End Developer*

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| * Interned at a fin-tech start up that provides a bank-independent payment platform with over a million users and around 1M+ daily transactions. Covers all Payment functionalities including Scan and Pay, UPI, Enterprise solutions, Mobile Recharges, DTH recharge as well as a KeyChain functionality. * Designed and implemented a spring boot project that serves as a robust Enterprise Mgmt. System, that simulates a similar user experience to that of the actual product by OmniCard. The project provides RESTful APIs to perform CRUD operations. It demonstrates robust implementation of the Controller, Service, Repository and DTO architecture. Includes functionalities like authentication, pagination and sorting, exception handling, custom responses, Many-To-One mapping and more * Built mainly on Java and Spring Boot and uses most of the popular Spring frameworks like Junit, Spring MVC, Spring Security and more. * Designed and wrote code snippets that were used in UAT (User Acceptance Testing) and Development environments |
| * Performed testing and analysis of the OmniCard app and the Enterprise Management solution and wrote API documentation for the same. * Used Burp Suite to trigger and analyze APIs and wrote a tech write-up of the back-end flow. |
| Tech Stack: Java, Spring Boot, DSA, JWT, Junit, Auth 2.0, MySQL, RESTful APIs, Hibernate, JPA, JDBC, Tomcat |

**JP Morgan Chase, Virtual Internship** **(June 2021 – Feb 2022)**

*Virtual Engineering program*

* Analyzed and refined existing code to interact with stock data and use data analytics to highlight potential trading opportunities.
* Implemented Perspective, an analytics web component for data visualization, to display the solutions of the twin stocks in a chart.

Tech Stack: Python, Git, Perspective

**Superprof Tutoring Services** **(Nov 2022 – April 2023)**

*Student Tutor and Course Co-Ordinator*

* Conducted one-on-one tutoring sessions with students from G11-12 and taught them fundamentals in Math and Physics
* Arranged sessions, Designed course timetables, Conducted games, quizzes and tests to maximize student engagement and make learning more interesting.

**PROJECTS**

* **Delhi Metro API -** Ongoing project that finds the shortest route between 2 stations in the Delhi Metro. With 10 lines, 250+ stations and potentially many interchanges, commuters may find it difficult to get the best and shortest route, even with Google Maps. This API provides an interactive UI that maximizes ease of use and efficiently displays the path, stations, interchanges that the user should know. Built with Javascript and Frameworks like React and Node js.
* **Web Scraping Working Prototype –** Made an automated web scraper using Python, Selenium, Pandas and Webdriver to scrape product details from a website as per client requirements. The project involved multiple meet ups and discussions with the client, after which design strategies and models were devised. The end product reduced manual work by around 80%.
* **Western SunStang Solar Car –** Part of the Software team, responsible for designing and implementing the working of headlights, horn and steering of the solar car. Used Python (Socket Library) , C, C++, STM32
* **Deutsch101.ca -** Designed a website for my aunt to advertise her German lessons. Used HTML, CSS, JS and Node framework.
* **Logo Scanner App –** Ongoing project – an app that scans and recognizes logos with AI. Built with Python, TensorFlow, CNN, React Native and Azure

**SKILLS AND INTERESTS**

* Other Technical Skills include: Microsoft Office, Generative AI, Prompt Engineering, Data Analysis, Graphic Design
* Non-Technical: Great Communicator (Verbal and Written) – can communicate fluently in English and Hindi, learning French. Efficiency – In day to day hands-on tasks like typing. Organizational and Collaborative – I have studied in collaborative environments all my life, and so I have a strong grasp on team dynamics and how to effectively lead a team. Travelling – I have been to 5 countries (India, US, Thailand, UAE and Canada) and so I can bring a diverse perspective to the team
* Interests: I love working out a lot (Gym, Sprinting, Long-distance running and most importantly, Calisthenics). I also love listening to different music genres (R’n’B, Metal, Rap, EDM, Punjabi).

**CONTACT**

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