

# **LAMBTON COLLEGE**



## **Final Draft Resume and Cover Letter [Co-op Preparation 07 DSMM)]**

121 Brunel Rd, Mississauga

ON L4Z 3E9

An individual assignment submitted by Aadarsha Chapagain of 2<sup>nd</sup> Term Winter 2022

Big Data Analytics DSMM

**Under the supervision  
of  
Professor Wassim Abdelmalik**

**Submitted BY:**  
Aadarsha Chapagain (C0825975)

**Submitted To:**  
Lambton College  
Professor Wassim Abdelmalik

**Submission Date:**  
16<sup>th</sup> April 2022

# AADARSHA CHAPAGAIN

## Data Engineer Intern

+3659948643  
aadarshachapagain@gmail.com  
<https://www.linkedin.com/in/aadarsha-chapagain-759532113/>  
L6Y 5E9, Brampton ON

Dear Validere Hiring Manager,

I am writing to express my interest in applying for the position of Data Engineer Intern at Validere Technologies for Summer 2022.

I am a Post Graduate student in Big Data Analytics computer with 5 years' experience working as a Software Engineer. My Post Graduate degree and data science skills give me an excellent combination of expertise including artificial intelligence, data modeling, visualization, communication, teamwork, and much more. My earlier experience not only has brought me joy in Software development, but also enabled me to realize the power of Data engineering. Hence, I believe my passion and expertise would be a great asset to your team. Do have a look at my CV to find out more.

You will find me a friendly, energetic, and reliable person. In a fast-paced working environment, I am a man with focus, commitment, and fast adaptability, which I hope I can put to good use at your firm.

Validere interests me the most particularly in how it is focused on providing single source of truth and identification of hidden sources of value across business. I am also excited about the tech stack that Validere uses to provide its solutions. I had chances to work on those stacks at my past jobs and really enjoyed it.

I would love to bring my passion, skills, and knowledge to your firm. I can make a positive contribution to the future of Validere. Give me the chance and I will help in solving complex problem and build pipelines to automate data ingress.

In short, I am a great candidate for this position. I would be delighted to continue discussing the various ways in which I could contribute to your firm. So please get in touch with me by telephone or by email and I would be happy to attend an interview at your convenience.

I know recruiting can be a long and stressful procedure so I would like to thank you for taking the time to consider my application.

Yours faithfully,

Aadarsha Chapagain

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Brampton ON

## Experience

### **Lambton College Mississauga, Big Data Analytics** *September 2021 – Present*

- Performed Data analysis and visualization on Ontario Covid Outbreak Dataset with python pandas, matplotlib, Seaborn
- Performed Data mining from twitter with Flume on top of Hadoop architecture.
- Performed sentiment Analysis on twitter data with pandas, tweepy, codecs, RapidAPI
- Built Apache Spark clusters to run on Amazon EMR
- Used Pig to perform analysis on the UCI Machine Learning Repository flag data set
- Parsed XML data in hive using XML serde and exported that data using Sqoop
- Utilized Tableau, PoweBI and Ms SQL Server for Visualization and analysis
- Utilized OOP concept with python and implemented TFID, Bag of words.
- Completed Certifications on SQL programming, MSSQL server, Data warehouse SQL, Machine Learning with python, Program Database with Transact SQL, Applied Machine Learning algorithms, on LinkedIn Learning.

### **Accessible ICT** *January 2021 – Present*

- Analyzed user requirements and created technical specifications with Miro, Jira and Adobe.
- Wrote and test code, refined and rewrote it as necessary and communicate with any programmers involved in the project, (Unit testing, API testing, performance testing)
- Maintained systems and corrected software defects by monitoring error logs and resource utilization metrics such CPU, memory, and disk usage
- Built, deployed, and maintained production infrastructure and services and staging environments with PM2 for NodeJS, Heroku for Django, apanel, git, Webhooks, AWS EC2, LightSail, RDS, AWS SES, AWS S3, Google Maps, Docker
- Consulted clients and colleagues concerning the maintenance and performance of software systems, with a view to writing or modifying current operating systems with Microsoft Teams. Google Meet, Skype for Business
- Investigated new technologies and continually updated technical knowledge and skills by attending in-house and external courses, reading documentation, manuals, guidelines and accessing new applications
- Deployed software updates, fixes and patches as per need of the system
- Wrote systems to control the scheduling of jobs or to control the access allowed to users or remote systems with cron Jobs and Apache Air flow
- Monitoring, troubleshooting and capacity planning of cloud platforms
- Implemented automation tools and frameworks (CI/CD pipelines)
- Present the deliverables and achieved milestones to the clients and other concerned parties with PowerPoint Presentations and live Demos

### **Code For Core Innovations** *December 2018 – January 2021*

- Analyzed and organized and cleansed raw data obtained from external source (Excel)
- Built Data models and Pipelines and API to communicate with other web applications
- Conducted data analysis and reports on result with python, Jupyter Notebook, Power BI Tableau and JavaScript frameworks Echarts , chart.js

- Performed Data cleansing and Validation with python and SQL
- Collaborated with Data Scientists and statistician on several projects
- Built Web Applications with MVC frameworks, Django(python) and flask(python)
- Worked with CSS, HTML, and JavaScript, along with jQuery, bootstrap to craft client-facing platforms
- Managed databases SQL, NO SQL, and servers with aapanel for Django and Flask, PhpMyAdmin, Apache, XAMP, MAMP, WAMP, LAMP
- Coding for functionality across multiple languages and platforms Laravel with PHP, Python with Flask and Django
- Communicated with specialized developers and the graphic design team to deliver the best possible product with Slack, Trello, Jira, Microsoft Teams, Skype, Telegram
- Kept up with emerging technology that may serve the business' needs
- Prototyped minimal viable products for communication with company stakeholders
- Meeting both technical and consumer needs.
- Designed databases and developed APIs after ER modeling and use Case diagrams with draw.io, Postman and thunder client.
- Assessed the efficiency and speed of current applications and error log analysis
- Managed production and staging environment with Digital Ocean, AWS EC2, RDS, S3 GitHub, GitLab, Nginx
- Quality Testing, API testing with Postman and Unit Testing

### **W3 Developers** *October 2016 – November 2018*

- Assisted the web development team with all aspects of website and application design.
- Assisted with the testing and maintenance of backend and front-end applications built with php Laravel, HTML, CSS, JavaScript, Bootstrap, jQuery and vuejs.
- Brainstorming new tech applications such as digital storage and mobile technology.
- Collaborated with developers to implement new web features.
- Kept up to date with the latest technology and programming trends.
- Converted video, audio, written, and graphic components into compatible formats for the web.
- Used user feedback to identify and correct problems with a client's website.

## **Projects**

### **Tender Build** [Link](#)

[Web Application to manage Construction project starting from tender to all the way to payments]

Tools: Jira, GitHub, Miro, Pm2, AWS ec2, Nodejs, Django, aapanel, Express, MongoDB, Postman, Git

Responsibilities:

- Followed Whimsical design to create the database model and API
- Developed Rest API with Nodejs, Express and MongoDB
- Collaborated with frontend team and client to produce expected result
- Setup Staging environment to show case updates and changes to client
- Integrated microservices and third-party API
- Generated Test Data for Performance Testing
- Performed User Testing and Tracking, Planning and Visualization with Miro
- Used PM2 with git for continuous Integration and Development
- Monitoring, troubleshooting and capacity planning of Staging and Production Environment
- Developed/maintained processes, tools, and documentation

### **Railway Recruitment** [Link](#)

[Portal For collecting the online application for hiring done by National Railway Department During Covid]

Tools: SQL, Python, Git

Responsibilities:

- Validated the application data using SQL and python
- Validation would mostly rely on the presence and absence of required document their readability
- Prepared the data of the applicants who have submitted all the relevant documents and uploaded the payment slip.

- Cleaned and application data and made it ready for analysis and visualized data

## Go Buddy Go [Link](#)

(Web Application for Collecting Hotel Data from Hotels and room availability for booking and reservations)

Tools: Django, Flask, SQL, Aapanel, Heroku, Mongo, Apache Airflow, Postman, Git

Responsibilities

- Designed and Developed Database models and Entity relationship diagram
- Developed Use Case Diagram with Draw.io
- Developed User Interface with Django Templates and changed Admin Templates
- Developed and Tested API with Rest Framework (DRF) and Postman
- Performed Versioning and Update Release, built test Data for performance testing

## Hamro Swasthya [Link](#)

[Web and mobile application portal for Covid Data Visualization for Government of Nepal]

Tools: SQL, Draw.io, phpMyadmin, python, Django, PostMan, Git

Responsibilities:

- Performed Entity relationship modeling
- Designed Database to reflect user interface
- Updated and managed Database
- Developed and Tested API with Rest Framework and Postman
- Cleaned Data and Transformed for Visualization
- Performed Data Visualization to achieve useful insights

## National news Site [Link](#)

[ News portal Owned and managed by Government of Nepal]

Tools: SQL, Draw.io, phpMyAdmin, Laravel, PostMan, Git

Responsibilities:

- Carried out Entity relationship modeling and documentation
- Designed Database to reflect the user interface
- Optimized Query and Database tuning to increase the performance
- Incorporated updates and changes in Database without affecting the production environment
- Developed and performed API testing with Postman
- Performed Microservices and third-party API integration

## Skills

- Language: C, Python, PHP, Spark, Java, Scala, Pig, HTML, CSS, JavaScript
- Libraries: Pandas, NumPy, ML
- Frameworks: Hadoop, HDFS, Mapreduce2, Yarn, Name Node, Data Node, Ambari, Sqoop, Kafka, Zookeeper
- PowerBI, Tableau, Django, Flask, PIP, Nginx, Heroku, Laravel, Node, Express, PM2, Jira, jQuery, JSON, AJAX, Bootstrap, GraphQL,
- Cloud: AWS EC2, RDS, EBS, EMR, GCP
- Database: SQL, Mongo, Hive, Cassandra, Big Query
- Systems: Windows (XP/2000/2003, 7, 8, 8.1, 10), UNIX, Linux, Centos, Macintosh
- CI/CD: Gitlab, GitHub, Webhooks

## Education

- Post Graduate Big Data Analytics Lambton College Mississauga.  
(2021-2023)
- Bachelor's in computer science & Information Technology, Tribhuvan University.  
(2014-2018)

## Awards

### **Jury Mention ICT AWARD (2020)**

This award was granted to Hamro Swasthya (official Covid 19 App by Ministry of health and population). Hamro Swasthya is a crisis management web and mobile portal to disseminate information regarding the Covid -19 victims

Contribution: Database Design and Maintenance

### **The FR. Charles A law S.J. Memorial Award (2018) St. Xavier's College Maitighar**

For Excellence in Social and Environmental Responsibility