EKRAMUL HOQUE

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TECHNICAL SKILLS

- **Languages:** Python, JavaScript, Java
- **Data Science:** Web Scraping, Text Analysis, Deep Learning (Pytorch)
- **Operating Systems:** Windows & Linux (Ubuntu)
- **Databases:** MySQL, MinIO, Elastic Search, Postgres
- **Cloud:** Azure
- **Data Engineering:** Pandas, NumPy, Data Validation, ETL
- **Visualization:** Microsoft Power BI, Tableau & Kibana
- **DevOps:** Kubernetes, Docker, Argo CD, Gitlab CI, GitHub Actions, Bash Scripting

PROFESSIONAL EXPERIENCE

Senior Data Scientist (Acting) at Statistics Canada – Data Science Division, Ottawa, Ontario, Canada   **Jan,2020-Ongoing**

- Led and developed an application using **FastAPI** alongside **Elasticsearch** and **Spacy**, enabling users to efficiently filter and search unstructured data, such as content from resumes/CVs. I contributed to writing **Helm charts** orchestrating automated deployment via Octopus in a **Kubernetes** cluster managed by Azure. Employing **GitLab CI**, I implemented **unit testing** and containerization with **Docker**. The tool's implementation significantly improved hiring managers' accuracy and streamlined the process of identifying potential candidates from resumes.
- Designed and executed the **ArgoCD pipeline** for streamlined **data loading**, **transformation**, and **ingestion** into Elasticsearch, enhancing data management and workflow integrity.
- Constructed an automated reporting process by integrating a **Django** application with Jira, enabling IT security administrators to track, sort, archive, and search **security vulnerabilities** within the StatsCan cloud.
- Developed a metadata management system proof of concept using the open-source data cataloging tool **CKAN**. Leveraging Python's **object-oriented** methodology, I customized extensions for interaction through API endpoints, enhancing ETL processes.
- Contributed to the development of a classification model utilizing **Support Vector Machines** to identify 6 economic events from 150k news articles in NewsDesk and Factiva, achieving a recall score of 0.92.
- Engineered a data ingestion pipeline for 1.5 million news articles extracted via **Kubeflow**, stored in Elastic Search, and visualized through **Kibana** Dashboard.
- Demonstrated **data virtualization** by using **Dremio** to convert SAS processes into SQL.
- Contributed to model serving with **Sheldon Core** on a Kubernetes cluster, employed object storage via **MinIO**, managed the ML lifecycle with **Mlflow**, and led containerization projects using Docker.
- Led and **managed projects** with a focus on business cases and deliverables, **engaging stakeholders** through detailed analysis, weekly updates, and project charter documentation.

Data Scientist Intern at Statistics Canada, Ottawa, Ontario, Canada   **May-Aug 2019**

- Using **Latient Dirichlet Allocation** (LDA), an NLP technique for topic modeling, analyzed chat logs and search queries for most frequent terms.
- Generated monthly report by parsing log files using ETL techniques for Statistics Canada web api services.
- Using python and dash, built an interactive web solution for consumer price index (CPI) based on user income to monitor and evaluate changes in their financial situation.

Application Developer 1, IQVIA, Dhaka, Bangladesh   **Oct 2016 - Aug 2018**

- Designed and initiated a social networking platform with one other team member to engage pharmaceutical and medical industry
- Engaged in multi-phase project development with a global team in delivering project milestones
- Developed modules using PHP and JavaScript as business logic

EDUCATION

MSc in Computing Science, Professional Master's Program in Big Data   **Graduation: 2019**
Simon Fraser University, Burnaby, Canada

- CGPA 3.78/4.33
- Received best presentation award in SFU AI Showcase at Harbour Centre among 135 projects under Professor Greg Mori's machine learning course

BSc in Computer Science and Engineering   **Graduation: 2016**
BRAC University, Dhaka, Bangladesh

- CGPA 3.77/4.00 in 145 credits
- Minor in Economics
- Appeared 2 times in Vice Chancellor's List and 6 times in Dean's List
- Received scholarship based on performance from Fall 2012- Summer 2015