Akrash Sharma

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LinkedIn
GitHub
Website

SKILLS

Languages and Databases: Python, C, R, JavaScript, SQL, MongoDB, PostgreSQL
Technologies and frameworks: Pandas, Scikit-Learn, NumPy, Matplotlib, TensorFlow, Tableau, HTML, CSS, NodeJS

EDUCATION

University of Alberta, Edmonton, Alberta, Canada   **Sept 2019 - June 2023**
BSc First Class Honors in Computing Science | GPA: 3.8/4.0
Relevant Courses: Software Engineering, Algorithms2, Database Management, Introduction to Machine Learning, Introduction to Natural Language Processing, Regression Analysis, AI Capstone, Mathematical Statistics, Risk Theory

RELEVANT EXPERIENCE

Research Assistant – AI Computational Team, Wishart Lab   **Oct 2022 – Aug 2023**
- Performed cross-correlation analysis to capture time lags and key trends in weather patterns in different seasons
- Used **Recurrent Neural Networks** to predict the weather for upcoming months in Alberta using time series data
- Used Yolov8 to perform **object detection** to detect cows and **image segmentation** to determine the noses
- Used **Convolutional Neural Networks** (VGG16) for feature extraction from the nose and eye masks of the cows

Data Scientist Intern – Royal Bank of Canada (RBC Amplify)   **May 2022 – Aug 2022**
- Interviewed enterprise stakeholders and capital market stakeholders to understand the business needs
- Built a Reporting and Analytics Dashboard using **Tableau** to capture key trends and analysis
- Built a Machine Learning Model using **Random Forests** to match business partners to sourcing professionals
- Used **Flask** to integrate the MLModel in the backend of the web application
- Pitched the final presentation to executives and won the **Biggest Pivot Award** at AmpExpo

Data Analytics Intern - University of Alberta   **May 2021 – Aug 2021**
- Used Descriptive Analysis and Correlation Analysis to help answer questions about Donor Engagement
- Built advanced **Tableau** dashboards with quick/context/global filters, parameters, and calculated fields to track and improve Donor Retention and Donor Giving Levels
- Used Predictive Modelling to help identify top prospects using **Random Forests** and built Donor Model

LEADERSHIP

UofA BluePrint Club – Project Manager GitHub   **June 2022 – Dec 2022**
- Led and managed a team of developers and designers to create software solutions for Alzheimer's Calgary
- Created a project evaluation template to assess the viability and impact of projects with non-profit organizations

Google Developer Student Club - President Website GitHub   **June 2021 – June 2022**
- Led and managed a team of developers to create a discord bot that posts internships based on user preferences
- Held virtual hands-on workshops in collaboration with Google Developers and local companies in Edmonton

ACM (Association for Computing Machinery) Student Chapter – Vice President   **Aug 2020 – May 2021**
- Organized club meetings, activities, distinguished speaker sessions, Kaggle competitions

PROJECTS

AI Capstone - Predicting LVO (Large Vessel Occlusion) Likelihood [GitHub Repository]
- Cleaned and Preprocessed EEG Data using **Independent Component Analysis** and **Wavelet transform**
- Implemented and compared the performance of Support Vector Machine, Random Forests, and Gaussian Process to predict LVO Likelihood from EEG Data and achieved 81% accuracy and 0.2 expected loss

Research Assistant - Data Science
- Designed linear and quadratic objective constraints from store discount policies and performed data partitioning
- Implemented constraints in IBM CPlex using Integer Linear Programming to compute the best shopping solution