Dana Zarezankova

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Overview: Senior year engineering student with 2 years of work experience seeking full time opportunities in machine learning engineering.

SUMMARY OF QUALIFICATIONS

- 4 years of programming in Python and MATLAB. Experience with Pandas, Sci-kit learn, PySpark, and PyTorch
- Experience in ML model development including ideation, data collection and scraping, data cleaning and engineering, model selection, and model performance improvement.
- Significant experience in healthcare data including fertility data, medical records, and physiotherapy costs.

EXPERIENCE

Machine Learning Intern   May. 2023 – July 2023
Hinge Health   *Waterloo, Canada*
- Implemented batch processing for PHI data ingestion and sanitizing to increase data processing speed by 200%, patent in progress.
- Improved PyTorch model's precision and recall for identifying high insurance cost patients by 10%.
- Used ChatGPT, Jurassic 2, and Claude LLM APIs with LangChain few shot prompting to generate personalized MSK educational articles for users.

Medical Artificial Intelligence Research Assistant   Jan. 2023 – Apr. 2023
University of Waterloo   *Waterloo, Canada*
- Developed end to end medical record matching system using random forests, XGBoost, and logistic regression.
- Implemented library for sk-learn machine learning model export to JSON for cross platform usage.
- Implemented Python libraries to support medical record data processing for record matching.

Data Scientist   May – Aug. 2022
Alife Health   *San Francisco, USA*
- Reduced mean absolute error of multiple regression model for egg retrieval predictions by 30%.
- Gained insight into competitor products using a Monte Carlo simulation to approximate the error of competitor models using their research accuracy.
- Automated data collection from an online birth rate predictor to enhance our patient success data set using Selenium.
- Redesigned the intelligent in-vitro fertilization clinic finder using historical data to develop insight into clinic success.

Data Scientist   Sept. – Dec. 2021
Alife Health   *San Francisco, USA*
- Lead the first iteration of an intelligent in-vitro fertilization clinic finder for patients.
- Scraped and cleaned clinic success and patient statistics from the CDC for a clinic ranking system.
- Designed and conducted user interviews with patients to validate a relevant and insightful clinic ranking system.
- Automated web scraping to collect patient review information on doctors and clinics for clinic profile pages.

PROJECTS

Clusters and Classification Boundaries Lab (SYDE 572) | *MATLAB*   Feb 2022
- Generate normally distributed clusters that match specific class means and covariances.
- Compared minimum and generalized euclidean distance, maximum a priori, and NN and kNN classifiers.
- Compared success with error rates and confusion matrices.

EDUCATION

University of Waterloo   Waterloo, ON, Canada
Bachelor of Applied Science in Honours Biomedical Engineering   *Sept. 2019 – April 2024*
- Degree specialization in medical AI including a capstone engineering project for brain tumor MRI image segmentation.
- Relevant Courses: Data Structures and Algorithms, Linear Signals and Systems, Pattern Recognition, Deep Learning, Image Processing, Computational Neuroscience.
- Academic representative to class cohort for +3 years.