Dana Zarezankova

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Objective: 4th year student seeking opportunities in software engineering and machine learning.

ABOUT ME

Professional Interests: machine learning applications in healthcare

Languages: Python, C++, C#, SQL, MATLAB **Libraries**: pandas, NumPy, Matplotlib, scikit-learn

Developer Tools: Git, Amazon Web Services, VS Code, PyCharm

EXPERIENCE

Data Scientist May – Aug. 2022

Alife Health

San Francisco

- 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

- 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.

Software Engineer

Jan. – Apr. 2021

ODAIA Intelligence

Toronto, Canada

- Built and shipped customer loyalty algorithms for Shopify apps in production, serving over 100 stores over 8 months.
- Developed an API that emails targeted marketing campaigns to unique customer segments using AWS Lambdas and Jenkins, saving users \$300-800 per month.
- Applied k-means clustering to Shopify store dataset to find trends in marketing spending using pandas and scikit-learn.
- Improved mapping Shopify customers to marketing dataset using Google Analytics tracking integration.

QA Tester

May – Aug. 2020

University Health Network

Toronto, Canada

- Automated and manual web app testing in agile software development for medical grade software.
- Wrote end to end automated tests for all user states and edge cases in JavaScript for Cypress.
- Actively prototyped diabetes clinician dashboard web app with a focus on data visualization.
- Documented verification and validation protocols using JIRA ticket management.

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.

COVID-19 Pandemic Simulation | MATLAB

Apr. 2020

- Used MATLAB for differential equation analysis and visualization.
- Created COVID-19 epidemiological model to observe susceptible, infectious and recovered populations.

EDUCATION

University of Waterloo

Waterloo, ON, Canada

 $Bachelor\ of\ Applied\ Science\ in\ Honours\ Biomedical\ Engineering$

Sept. 2019 - April 2024

• Relevant Courses: BME 122 Data Structures and Algorithms, SYDE 572 Pattern Recognition