Joe (Yuechen) Zhang

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SUMMARY OF QUALIFICATIONS

♦ Outstanding programming skills with Python, R and C/C++, adapted from university coursework and prior experiences.

♦ Proficient data analysis skills using Pandas, SQL, Tableau, MS Power BI, MS Excel and R, developed from past internships.

♦ Knowledge in computer science, statistical inference, machine learning and time series analysis gained from academic studies.

♦ Strong understanding in SVM, Random Forests, XGBoost and MLP models. Achieved the third place in an in-class Kaggle competition.

♦ Quality written and communication skills fostered from training employees at ROP on new Job Site Inspection procedures.

♦ Quick Learner, effective time management and quick adaptability to environments as demonstrated by excellent academic grades.

EDUCATION

Candidate for Honors Computer Science, University of Waterloo, Waterloo, ON   Sept 2018 – Present

• 4A Data Science student with a Cumulative Average of 91.5

RELEVANT PROJECTS

Course Evaluation Sentiment Analysis, Self-Study Project, Nanjing   May 2021

• Prepared course evaluation comments and ratings by developing web crawling scripts in Python.

• Tokenized the comments, used n-gram to construct bag-of-word matrix for the sample comments.

• Predicted the ratings by fitting a Naïve Bayes model and a CNN model to the bag-of-word matrix.

• Achieved an accuracy of 0.675 on the test set.

Protein Location Prediction, University of Waterloo, ON   April 2021

• Given data including protein classes, interactions, and essence, predict the location of the protein into 1 out of 14 categories.

• Trained SVMs, Random Forest, XGBoost and MLP models. Achieved a best accuracy of 0.725 on the test set.

• Won the third place in the in-class Kaggle competition.

Eruptions-Waiting Clustering for the Old Faithful, University of Waterloo, ON   Mar 2020

• Visualize the dataset by plotting the data on a scatter plot. Proposed a Gaussian Mixture Model based on the visualization.

• Utilized Expectation-Maximization Clustering Algorithm to find the means and standard deviations for the Gaussian Mixture Model.

PROFESSIONAL EXPERIENCE

High Hope Wisdom Investment Management Company – **Data Analyst**   April – July 2021

15 Hubu Street, Nanjing, Jiangsu, China

• Maintaining data integrity over 3 databases with over 100 tables. Investigated and cleaned over 1 million mis-recorded and inconsistent records from these databases.

• Programmed Python and SQL to produce monthly financial reports automatically for the production team.

• Developed and maintained programs that parses daily hedge fund net asset values from email bodies, and load the data into the databases.

Region of Peel – **Business Intelligence Analyst**   Sept – Dec 2020

2 Copper Rd, Brampton, ON

• Collaborated with team members to move on-premise data into the cloud using MS Access, MS Flow and SharePoint REST APIs.

• Programmed MS Power App for a digital form used for job site inspections. Utilized MS Flow to generate PDF summaries and send auto email confirmations. Developed a Power BI dashboard to reveal the distribution of the answers.

• Fostered problem-solving skills through proposing and building new management systems for the division's contracts.

• Enhanced communication skills developed by training over 40 employees on the new job site inspection procedure.

• Coded MS Flow to automatically track locate complaints and locate information requests.

Overbond – **Data Science Intern**   Jan – April 2020

20 Richmond Street East, Toronto, ON

• Built precision metrics for the Overbond's bond pricing algorithm and created visual reports of the algorithm's precision errors using Python and Tableau.

• Utilized Google Cloud API to update and send weekly precision reports for further collaboration with the Data Science team for algorithm precision improvements.

• Assisted the research team to run developing models in AWS instances for speed. Developed solid skills in Pandas, R and Unix Commands.

• Collaborated with the software development team to implement web app features with JS and React.