Leon Zhang

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Summary of Qualifications

Programming Languages: Python, Java, R, SQL, MATLAB, C++, JavaScript, HTML, CSS.

Software Tools and Skills: ML Libraries (Sklearn, PyTorch, TensorFlow, Keras), Git (GitHub, GitLab), Containers (Docker), Spread Sheets (Excel, Google Sheet), Cloud Computing (AWS, Azure, GCP), Continuous Integration & Deployment (CI/CD), Flask Application, Data Visualization Tools (Grafana), Data Warehouse and Orchestration (Snowflake, RapidMiner).

Relevant Coursework: Machine Learning, Statistical Modeling, Natural Language Processing (NLP), Data Engineering Systems, Database Management Systems, A/B Testing, Linear Algebra, Data Structures, Algorithms, Probability.

Certifications: AWS Certified Solution Architect – Associate [Credentials]

Professional Experiences

Data Science Intern, Windstream – Durham, NC **May. 2021 – Aug. 2021**

• Facilitated proactive live customer services through sentiment analysis by building, training, and packaging NLP transformer models for chatbot system in PyTorch.

• Generated business insights by building visualization dashboards on user activities, remedy tickets, system message errors, and customer satisfaction using Snowflake, Python, REST API, RapidMiner, and Grafana.

ML Software Programmer, Duke Health System – Durham, NC **Jan. 2021 – Present**

• Assist doctors to find effective treatment solutions through developing Bi-Clustering algorithms in R and Python, which match patient demographics with cancer symptoms.

Research Assistant, University of Washington – Seattle, WA **Jan. 2019 – Jun. 2020**

• Devised a deep learning model - variational autoencoder with the research team to explore chemical reaction pathways and predict intermediate chemical species using TensorFlow.

• Built a training dataset by computing all possible chemical species from reaction pathways using Python libraries including NumPy, Pandas, etc.

• Implemented molecular rotational techniques with quaternion coordinate system in Python and C++ to visualize molecule movement in space and study interactions with different interfaces.

Education

Duke University, Durham, NC **Aug. 2020 – Apr. 2022**

Master of Science, Data Science (MIDS) Overall GPA: 3.78/4.00

University of Washington, Seattle, WA **Sep. 2016 – Jun. 2020**

Bachelor of Science, Chemical Engineering Overall GPA: 3.55/4.00 Computer Science GPA: 3.76/4.00

Projects & Competitions

2020 Duke Datathon – 1st Place [Link] **Oct. 2020**

• Collaborated in a team of four and achieved 1st place in finding out the economic impact of COVID-19 across the world.

• Designed a comprehensive metric using PCA that reflects the economic condition of a country over time by aggregating multiple economic indicators to perform modeling.

• Presented insights of what countries are likely to be impacted by the pandemic and made suggestions to help relieve the economic impact using regression modeling and time series forecasting in R and Python.

Movie Recommendation Web Application [Link] **Aug. 2020**

• Designed a visually appealing, scalable web application to provide movie recommendations using Flask, Python, JavaScript, HTML, and CSS.

• Adapted continuous integration and deployment for automated code test and production using cloud services from GCP.