Amir Shahlaeegilan

207-889-0597 • amirhosein.shahlaee@gmail.com • AmirShahlaee
amirhosein-shl • Personal-Website

Summary of Qualifications

- Over 5 years of academic and industry experience applying machine learning, data analysis, and statistical modeling techniques to solve complex problems, with a track record of impactful research published in notable journals.
- Proficient in data collection, SQL database management, and data analysis.
- Proficient in programming languages including Python and R.
- Experienced with data science libraries such as scikit-learn, TensorFlow, Keras, Matplotlib, Seaborn, Pandas, and NumPy, etc. Additionally, skilled in using AWS and Heroku and GCP for various data-related tasks.

Education

MSc, Data Science | University of Maine | Full Scholarship | GPA: 3.78

- Relevant Coursework: Computer Vision, Database Systems, Econometric, System Optimization, GIS Applications

BSc, Civil Engineering | Sharif University | Full Merit Scholarship Award | Graduated Cum Laude

- Relevant Coursework: Numerical Computing, Probability & Statistics, Python, Systems Eng, Econ. Eng, Proj. Mgmt.

Industry Experience

Data Scientist — **Transpo Group**
Kirkland, WA — *Jan 2023 - Jan 2024*

- Developed an accurate vehicle, pedestrian, and bicyclist counting tool for intersection analysis, enhancing workflow efficiency and outperforming previous data collection methods.
- Developed and implemented custom Python toolbox in ArcGIS Pro for cost analysis, streamlining processes and improving efficiency.
- Developed Python-based tool to extract data from water stations across Washington State websites using APIs and integrate retrieved data into GIS layers.
- Engineered and deployed an advanced automation tool as a web application on Heroku, significantly enhancing workflow efficiency.

Data Scientist Intern — **Transpo Group**
Kirkland, WA — *Jun 2022 - Dec 2022*

- Conducted extensive data wrangling tasks on diverse datasets, ensuring data cleanliness and compatibility for analysis.
- Produced visual representations using Python, R, and ArcGIS Pro for impactful reports.

Projects

Premier League Scores Prediction

- Led the creation of a machine learning tool to forecast soccer match scores for Premier League teams, leveraging 10 seasons' worth of meticulously preprocessed and cleaned data.
- Applied advanced machine learning techniques to train, validate, and deploy predictive models, offering valuable insights into team performance and match predictions.

Personalized Q&A App

- Created an app leveraging the Google Palm API to deliver personalized responses based on a curated set of approximately 40 questions and answers, showcasing adeptness in natural language processing.
- Employed machine learning techniques such as LangChain and InstructorEmbedding to develop a robust vector database for question-answer pairs, ensuring accurate responses and enhancing user engagement within the app.

Leaf Disease Classification

- Achieved over 98% accuracy in potato leaf disease classification using CNNs implemented with TensorFlow Keras, demonstrating deep learning proficiency.
- Successfully deployed the disease classification app on Google Cloud Platform (GCP) and Heroku, showcasing expertise in cloud computing and application deployment.

Academic Experience

Graduate Research Assistant
Orono, ME — *Jan 2021 - May 2022*

- Utilized advanced statistical methodologies such as panel data and time series analysis to analyze the impact of COVID-19 on rural road speeding.
- Contributed findings from the analysis of approximately 5 million data points to a prestigious academic publication.
- Applied machine learning algorithms to analyze speed data and implement clustering techniques, contributing to insightful findings and data-driven decisions.