Biplab Dahal

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Professional Summary

I am Biplab Dahal, currently pursuing my Master's Degree in Computer Science at the University of South Dakota, with more than 2 years of experience as a Software Engineer specializing in .NET programming. I am focused on expanding my skills through practical projects. My goal is to apply my technical expertise to contribute meaningfully and advance my career in technical field.

Professional Experience

Cedar Gate Services

Software Engineer 06/2022 - 08/2024

- Cedar Gate is a U.S.-based healthcare technology company focused on enhancing oper- ational efficiency and improving patient care for both payers and providers. I worked as a software engineer in the payment technology department, where my responsibilities included analyzing requirements and writing standardized code using .NET program- ming languages such as Visual Basic and C#. I also evaluated existing applications to enhance their functionality.

Education

University of South Dakota Vermillion, South Dakota

Master's in Computer Science 08/2024 - Present

Tribhuvan University Kathmandu, Nepal

Bachelor's in Computer Engineering 2015 - 2019

Araniko Awasiya Higher Secondary School Biratnagar, Nepal

Intermediate Level/+2 2013 - 2015

Eden National Secondary Boarding School Biratnagar, Nepal

School Leaving Certificate

Technical Skills

- **Data Science Tools:** Numpy, Pandas, Scikit-learn, Matplotlib/Seaborn, Tensorflow/Pytorch
- **Programming Languages:** Python, .NET Programming(Visual Basic/C#), C/C++
- **Web Development:** HTML/CSS, Javascript, Bootstraps, React, Photoshop
- **Other Tools:** Git/GitHub, SSMS, Visual Studio, VS Code, PyCharm

Academic Projects

Road Accident Severity Prediction Python, HTML/CSS, Data Science, Git/GitHub

* This project utilizes backpropagation techniques to train neural networks for predicting accident severity. In addition to forecasting accident outcomes, it performs an in-depth analysis of road safety data to identify critical factors and trends in traffic incidents. These insights aid in imitigating risks, providing valuable guidance for policymakers and planners in developing more effective road safety strategies. By combining predictive modeling with comprehensive safety analysis, the project supports data-driven decision-making to reduce accidents and improve overall road safety. In this project, I primarily worked on the frontend, ensuring an intuitive and user-friendly interface. On the backend, my focus was on research and understanding key concepts, which I then applied to implement the necessary functionalities effectively.I learn about machine learning concepts through my research.

Agora Python, HTML/CSS, Django, Git/GitHub

* Agora utilizes a Collaborative Filtering algorithm, similar to the techniques used by popular platforms like Netflix and Amazon, to offer personalized recommendations. By analyzing the content that users search for, it identifies patterns in preferences and behaviors, enabling it to suggest relevant items. Netflix, for example, uses Collaborative Filtering to recommend shows and movies based on viewing history, while Amazon applies it to suggest products based on past purchases and browsing habits. This algorithm considers user interactions and similarities between items or users, allowing the system to deliver accurate and tailored suggestions. By doing so, the application enhances the user experience, making it easier for individuals to discover new products, services, or content that align with their interests, much like how Netflix and Amazon curate personalized recommendations for their users.

Certifications and Acheivements

Road Accident Severity Prediction Python, HTML/CSS, Data Science, Git/GitHub

* I participated in a software competition at the Lite Technical Exhibition during my bachelor's degree, where I showcased my major project on road accident severity prediction and earned a certificate of participation.

Volunteer

* I volunteered at the Lite Technical Exhibition and was awarded a certificate for my participation.