TAI'VEYON SHAW

SOFTWARE ENGINEER

PROFILE

I am currently seeking opportunities in a fast-paced environment, where I can leverage my expertise in Data Science to learn quickly and contribute significant value as a software engineer. As a versatile and adaptable software engineer, I value teamwork and excel in complementing high-dynamic teams.

WORK EXPERIENCE

SOFTWARE ENGINEER (L1)

WWU Entertainment Application Services (2021 - 2023)

- Revamped legacy Unity forms by seamlessly transitioning them to the modern OnBase form systems, aligning with the latest system requirements and adhering to Web Content Accessibility Guidelines (WCAG) for enhanced inclusivity.
- Devised a streamlined and user-friendly automated script, skillfully combining Groovy and SQL, to efficiently convert OnBase files to Excel format to improve productivity.
- Collaborated effectively within a cooperative work environment, participating in weekly meetings to provide updates on task progress and ensure seamless coordination among team members.

NOTABLE PROJECT

SPEAKER CLASSIFICATION (CS481)

The central focus of the project was to determine the likelihood of two .wav files originating from the same speaker. The dataset provided for analysis consisted of multi-Gigabytes of data, with the training set exhibiting an approximate 10% probability of being from the same speaker.

- Developed a robust system to preprocess .wav files, transforming them into Mel spectrograms for optimal utilization in Convolutional Neural Networks (CNNs).
- Implemented advanced normalization techniques, including cutting and padding, to handle variations in .wav file lengths during the spectrogram conversion process. This ensured uniform input shapes and maintained data integrity for subsequent CNN analysis.
- Leveraged the renowned VGG-16 architecture, a powerful Convolutional Neural Network, to facilitate effective feature extraction and classification, enhancing the system's ability to deliver accurate and reliable results.

Languages and frameworks: PyTorch, Python, NumPy. Matplotlib

DETAILS

taiveyonshaw@gmail.com

360-720-0530

Bellingham, WA 98225

LINKS

Github

LinkedIn

Personal Website

EDUCATION

BACHELOR OF SCIENCE, DATA SCIENCE

Western Washington University (WWU)
2019-2023

MINORS

- Mathematics
- Japanese

SKILLS

Programming Languages & Frameworks:

Java, Python, HTML, CSS, JavaScript, React, Typescript, PyTorch, NumPy, Pandas, Matplotlib, SQL, Scikit-Learn, MATLAB, R, C++

Concepts:

Machine Learning, CNN, Transformers, Neural Networks, RNN, DNN

PROJECTS

PERSONAL PORTFOLIO WEBSITE

Link: https://www.taiveyonshaw.com/

The website serves as an interactive showcase of my passion for Software Development and Data Science. The website reflects my commitment to delivering exceptional work, designed with a focus on user experience and aesthetics, it provides a comprehensive overview of my diverse projects and skills.

- Gained Knowledge on how HTML, CSS, and JavaScript all work together to create a pleasing website with organized code.
- Designed my own functions in order to create personal functions and animations for the website.
- Continually update my portfolio website to keep it relevant and ensure that visitors get a glimpse of my latest endeavors. My website is a testament to my dedication to lifelong learning and staying abreast of emerging trends in the Software Development and Data Science industry.

Languages and Frameworks: HTML, CSS, JavaScript

LANGUAGES

JAPANESE

My fluency in Japanese enables me to engage in natural and meaningful conversations with native speakers, as well as comprehend simple written materials.

- immersed myself in Japanese culture, gaining a deep understanding of customs, traditions, and societal norms.
- My proficiency opens doors for me to collaborate with Japanese-speaking colleagues and clients seamlessly. I am confident in my ability to contribute effectively in multilingual work settings.

CLASSES

DEEP LEARNING (CS481)

Delve into the cutting-edge realm of artificial intelligence and its transformational impact on various domains, exploring the fundamentals of deep learning, encompassing essential models, algorithms, and applications that shape the future of technology.

- Gained Knowledge on different types of Neural Networks such as DNN, CNN, RNN and the application at which problems they were effective at solving (e.g. CNN is better for image recognition).
- Read and implemented techniques to fine tune hyperparameters and get the highest accuracy on a model.
- Discovered state-of-the-art Neural Networks and the efficiency of the Networks through understanding mathematical background of the network.

Languages and Frameworks: Python, NumPy, PyTorch, Matplotlib

OBJECT ORIENTED DESIGN (CS345)

In the world of software development, mastering Object-Oriented Design(OOD) is paramount, and my coursework in Object-Oriented Design has equipped me with a profound understanding of the core principles of OOD.

- Exercised UML diagrams implementation such as class diagrams, sequence diagrams, and state diagrams to allow for effectively communication of the architecture of software projects, ensuring seamless collaboration with fellow developers.
- Understood and implemented essential design patterns such as Observer, Decorator, Factory, Singleton, Command, Adapter, Facade, Template Method, Iterator, Composite, State, and Proxy Patterns.

Languages and Frameworks: Java

ANALYSIS OF ALGORITHMS II (CS405)

Gained knowledge of advanced algorithms, including minimum spanning tree, shortest path, network flow, dynamic programming, and greedy algorithms, allowing me to grasp the inner workings and optimize the performance of complex problems.

- Understood time and space complexity of diverse algorithms.
- Gained advanced knowledge and implemented various algorithmic techniques, including dynamic programming, greedy algorithms, and randomized algorithms.
- Delve into the theory and implications of NP-Completeness problems.

Languages and Frameworks: Java