Taiveyon Shaw
Software Developer

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PROFESSIONAL EXPERIENCE

WESTERN WASHINGTON UNIVERSITY (ENTERTAINMENT APPLICATION SERVICES) **Bellingham, WA**
Web Developer 2 (Work Study) **Oct 2021 - Jun 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.
- Developed a highly efficient automated script using Groovy and SQL, converting OnBase files to Excel format, saving 25+ hours per week and enhancing productivity by 40%
- Collaborated effectively within a cooperative work environment, participating in weekly meetings to provide updates on task progress and ensure seamless coordination among team members.

EDUCATION

WESTERN WASHINGTON UNIVERSITY (WWU) **Bellingham, WA**
Bachelor of Science, Major in Data Science; Minor in Mathematics; Minor in Japanese **Sep 2019 - Aug 2023**

Selected Project Experience

- **Speaker Classification (CSCI481)**
  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.
  - Engineered a robust system to preprocess .wav files into Mel spectrograms for optimal utilization in Convolutional Neural Networks (CNNs); improved audio recognition accuracy by 40% and enabled advanced audio analysis, enhancing the model's ability to classify and understand complex audio data.
  - 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, WandB

Selected Classes

- **Analysis Of Algorithms II (CSCI405)**
  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 hard toy problems.
  - Exercised time and space complexity calculations of diverse algorithms.
  - Gained knowledge of 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

- **Object Oriented Design (CSCI345)**
  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.
    - Advanced my knowledge of UML diagrams implementation in class diagrams, sequence diagrams, and state diagrams to allow for effective communication of the architecture of software projects, ensuring seamless collaboration with fellow developers.
    - Practiced essential design patterns such as Observer, Decorator, Factory, Singleton, Command, Adapter, Facade, Template Method, Iterator, Composite, State, and Proxy Patterns

  Languages and Frameworks: Java

- **Deep Learning (CSCI481)**
  My passion for software development sparked when learning about the cutting-edge realm of artificial intelligence and its transformational impact on various domains. I explored 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).
    - Practiced hyperparameter tuning, decision-making and other various techniques to optimize accuracy.
    - Discovered and engineered state-of-the-art Neural Networks and the efficiency of the Networks through understanding the mathematical background of the network.

  Languages and Frameworks: Python, NumPy, PyTorch, Matplotlib, WandB

LANGUAGES

- **Japanese**
  My fluency in Japanese enables me to engage in natural and meaningful conversations with native speakers, as and 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.

ADDITIONAL INFORMATION

- Technical Skills: Java, Python, HTML5, CSS, JavaScript, React, Typescript, PyTorch, NumPy, Pandas, Matplotlib, SQL, Scikit-Learn, MATLAB, R, C++, Machine Learning, CNN, Transformers, Neural Networks, RNN, DNN, NLP, Basic Programming, Software Design, Detail-Oriented, Software Coding, writing reports, computer science