Qiaowen(Elaine) Wu

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Education

Carnegie Mellon University Aug. *2022 - Dec. 2023(expected)*
Major: MS in Information Networking
University of Wisconsin-Madison *Sep. 2019 - Dec. 2021*
Major: BS in Computer Science, Mathematics

Skills

Programming Languages: Java, Python, Go, C/C++, PowerShell, HTML, CSS, JavaScript, Assembly, Swift
Frameworks: SpringBoot, JavaFX, Bootstrap, jQuery, Dash, Flask, Maven
Developer Tools/Big Data: Linux, Git, GDB, Visual Studio, VS Code, XCode, Eclipse, MySQL, PyTorch

Working Experience

System Engineer and Risk Engineer Intern, Northwestern Mutual Remote | *Jun. 2021 - May. 2022*

- NetDocs Migration Project - Migrated data to SharePoint from NetDocs, saving cost and time by 72%
  - ✧ Participated in developing the whole on-boarding process, including SharePoint site and Groups provisioning, Scan-to-File implementation, testing the SharePoint solution after migration, and etc.
  - ✧ Created M365 Group connected SPO Site in **PowerShell** script with **PnP.PowerShell Module** and **Graph API.**
  - ✧ Managed the migration of over 300 GB per night with migration tool.
  - ✧ Collaborated with Migration Project Plan with experience and expertise in leading a SharePoint Migration.
- Database Storage Management
  - ✧ Detected the activities and frequencies of 3.5k accounts, classifying inactive users as orphaned users using a **decision tree**, and removed them from the admission directory in **shell** scripts.
  - ✧ Implemented an automated process of suppressing new employees' profiles appearance until starting date in **PowerShell**, increasing operation efficiency by 80%.
- Assisted in Security Engineering assessment for Autostore technology, proceeding forward with the vendor assessment for the SaaS offering of Kofax Autostore, improving the operational efficiency and productivity by 52%.

Research Experience

Distribution Shift Detection in NLP UW-Madison | *Jul. 2021 - Dec. 2021*

- Researched on distribution shift detection using embedding models collaboratively in **PyTorch.**
- Processed **PPMI** model as sentence embeddings for IMDB datasets, increasing an accuracy score of 78.62%.
- Implemented sentiment analysis on **PMI,Word2Vec, and BERT** with **NumPy** and **SciPy**, processing large datasets Yelp, Amazon Review in **spaCy.**

Dashboard for the WI Potato and Vegetable Growers Association(Github) UW-Madison | *Sep. 2020 - Aug. 2022*
Lab: Wisconsin Institute for Discovery

- Collaborated with cross-functional team to build and maintain a front-end dashboard with interactive visualization tools using **Python(Plotly & Flask)** and **Dash** to intuitively visualize the factors that contribute to incidences of potato pathology, increasing decision accuracy by 85%.
- Conducted multivariate analysis(**regression, correlation, factor analysis, analysis of variance**, etc) of over 7,000 potato batches to classify raw data and provided valuable data for generating plots.
- Built and deployed **KNN** algorithms to detect anomalies and improve data quality, reducing problematic data points by 72%.

Projects and Hackathon

Spring Boot E-Commerce Ultimate *Jun. 2022 - Present*

- Implemented a full-stack shopping site development using **Java**, **Spring Boot**, **Thymeleaf, Bootstrap**, **JavaScript** and **jQuery.**
- Performed loading tests with **Junit** and **Mockito**, adopted **MySQL** to store data.

Malloclab: Writing a Dynamic Storage, Allocator CMU | *Jun. 2022 - Jul. 2022*

- Developed a dynamic memory allocator through segregated list and proper block design in **C**, achieving a satisfied utilization and throughput.

Distrubited File System UW-Madison | *Nov. 2021*

- Developed a working distributed file server as a stand-alone UDP-based server, following the log-structured file system in **C** script.

Getting Lyrcis from NetEase Cloud Music *Nov. 2020 - Dec. 2020*

- Realized the feature of fetching info and lyrics about all songs of given 239 artists' ids from NetEase Cloud Music in **Python.**
- Handled **JSON** format and **API** Request, used **BeautifulSoup** library to scrape the page's **HTML** for song lyrics.

UnicodeSC + Hackathon, BackEnd Developer *Sep. 2020*

- Developed a UI allowing users to communicate by joining different rooms in **JavaScript/HTML/CSS,** increasing target audiences by 12%.