

Will Bell

7608463780 | willbell0@icloud.com | linkedin.com/in/bellwill | github.com/willb0 | Carlsbad, CA 92009

EDUCATION

Purdue University

West Lafayette, IN

Bachelor of Science in Data Science, Bachelor of Science in Math

December 2023

Coursework: Data Structures, Probability Theory, Machine Learning and Data Mining, Abstract Linear Algebra, Cryptography, Information Systems(SQL), Applied Regression

TECHNICAL SKILLS

Programming Languages: Python, Java, SQL, Bash, Rust, HTML/CSS/Javascript, Go

Frameworks: FastAPI, Spark, Airflow, Spring, Django, React

Tools: AWS, Redis, Railway, Docker, Selenium, Git, Linear

Libraries: Pandas, NumPy, Streamlit, nltk, scikit-learn, matplotlib, PyTorch

EXPERIENCE

Software Development Engineer Intern

May 2022 – Aug 2022

Amazon

Seattle, WA

- Designed a full-stack feature for created Alexa skills allowing 3P developers to beta test before a skill is live.
- Created and refactored endpoints from **Java SOAP API** codebase to support a new certification stage.
- Used **React.js** and **Redux** to develop UI components for the Alexa developer-facing website.
- Gained experience using/deploying **AWS** technologies, such as **SNS, SQS, DynamoDB, RDS, EC2**.

Digital Analytics Intern

May 2021 – Aug. 2021

Cloudflare

San Francisco, CA (Remote)

- Aggregated ad/marketing Google Analytics data from BigQuery(**SQL**) for dashboards in Google Data Studio.
- Provided visualizations of metrics like CPL, CPC, and CTR to highlight talking points for marketing leads/teams.
- Built multiple analytical data transformation pipelines for master marketing dashboard using GCP/BigQuery.
- Optimized signup flow with Web team using A/B testing and **SQL** to find UX bottlenecks driving high bounce rate.

Undergraduate Research Assistant

June 2020 – May 2022

Purdue University

West Lafayette, IN

- Assisted on projects in the IoT ML security space, also proofreading and editing papers for conference submission.
- Worked closely with a Ph.D student on detecting pattern anomalies in a smart home sensor environment.
- Fostered knowledge on encoder-decoder model architecture, and neural machine translation.
- Gained extensive experience processing data and building pipelines using **SpaCy**, **pandas**, and **NumPy** for input to seq2seq model implemented in **PyTorch**.

PROJECTS

Reddit Post Autocategorization [link](#) | *Python, Rust, nltk, Streamlit, Docker*

Oct. 2022 – Present

- Built a microservice ML pipeline to gather user saved posts and automatically cluster based on topics.
- Used **FastAPI** and **async-praw** to build API for gathering Reddit posts, alongside **nltk** for text preprocessing.
- Leveraged a fast **Rust** implementation of a probabilistic **NLP** clustering model (GSDMM) served using **Actix**.
- Created frontend using **Streamlit** and **matplotlib** to view low-dimension embeddings of clustered posts.
- Containerized each service using **Docker** and deployed on Railway.

Mercari Sniper [link](#) | *Python, FastAPI, Redis, Twilio, Selenium*

Sep. 2022 – Present

- Implemented a **FastAPI** client to search Mercari Japan using a JSON request body as opposed to user input.
- Created this project to help myself identify and flip valuable secondhand clothes from Japan.
- Generated client side JS using **Selenium** and parsed into python using **BeautifulSoup**.
- Developed a notification feature using **Redis** and **Twilio** to alert users when their searches have new items.
- Designed a frontend interface to use the API with **Streamlit**, containerized with **Docker** and **docker-compose**.

HOBBIES

Cooking, Snowboarding, Guitar, Hiking