Wenmo Sun

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EDUCATION

The University of Arizona **Tucson, AZ**
M.S., Information Science   December 2021
Ph.D., Chemistry   May 2021
Jilin University **Changchun, China**
B.E. Engineering   July 2014

WORK EXPERIENCES

Amazon, **Software Development Engineer,** Santa Monica, CA   February 2022 – Current
- Achieved 25% in operational cost reduction for Amazon Ads campaigns by automating the elimination of millions of inactive campaigns daily. Designed and developed the solution with various AWS technologies including Step Functions, Event Bridge, Lambda, SQS, Athena, S3, CloudWatch, and CloudFormation.
- Engineered a monitoring tool that provides accurate insight into costs and performance for millions of our advertising campaigns. This tool enables my team to closely monitor our services and detect performance issues early. I developed this tool using AWS Glue jobs and deployed it using AWS CDK.

The University of Arizona, **Researcher**, Tucson, AZ   August 2021 – December 2021
- Contributed to a project in Natural Language Processing by developing Named-entity Recognition (NER) models to compare the impact of data augmentation in situations with complex contexts such as medication identification and indexing in PubMed articles.

Genentech, Data Science Intern, South San Francisco, CA   May 2021 – August 2021
- Acquired, cleaned, and integrated active ingredient adverse event data from public APIs (PharmaPendium) and internal domains for building web application software for company-wide use.
- Scraped over 600,000 records from the FDA substance registration system using Beautiful Soup.

Facebook, Research Intern, Redmond, WA   January 2020 – July 2020
- Delivered reliable prediction results by applying machine learning algorithms to refractive index data.
- Generated a patent for AR prototypes in collaboration with cross-functional AR/VR teams.

The University of Arizona, **Graduate Assistant**, Tucson, AZ   September 2014 – December 2019
- Generated intellectual property in the form of 4 patents in the area of polymer materials.
- Managed routine maintenance, sample service, and user training at the NMR facility.

TECHNICAL SKILLS

Programming: **Python, Java, SQL, R, HTML, CSS, JavaScript, TypeScript.**
Selected Courses: Neural Networks, Text Retrieval and Web Search, Statistical Natural Language Processing, Data Mining with R, Introduction to Machine Learning, Data Structures and Algorithms.

PROJECTS

An E-Commerce Recommendation System.
- Built a recommendation system using BigQuery ML to generate product recommendations from customer data.
- Obtained predictions from the deployed model and exported them for use in making recommendations.

SmartBrain Web App.
- Developed the AI powered web application software using Bootstrap, HTML, CSS, React JS.
- Implemented an image recognition API for human face detection in the given images uploaded by users.
- Administrated user data with PostgreSQL to ensure accurate, appropriate, and effective use of information.

Time Expression Extraction/Sentiment Analysis Using Neural Networks/Machine Learning.
- Built neural networks/convolutional neural networks (TensorFlow, Keras) with 10,000 YouTube comments for spam sentiment analysis and achieved accuracy at 84% (RNN) and 83% (CNN).
- Constructed feedforward neural networks and convolutional neural networks to improve the F1 score of the time expressions extraction in newsletters and clinical text from 0.45 to 0.65 which was among the 10% systems in the class.