Yuren Sun

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EDUCATION

Stanford University September 2022 - June 2024
Master of Science in Computer Science, 4.04/4.00
Related Courses: Bioinformatics, Data Mining, Database (I/P), Embedded Systems, NLP, Graph Neural Networks (I/P)
Teaching: Course Assistant for Computer Graphics (Blender and Python) and Mathematical Foundations of Computing

University of Wisconsin – Madison July 2018 - December 2021
Bachelor of Science, triple major in Computer Sciences, Economics, and Mathematics, 3.98/4.00
Awards: Comprehensive Honors with Honors in the CS major (2021), Holstrom Environmental Research Fellowship (2021)
Related Courses: Algorithm, Data Structures, Database, Linear Optimization, Operating Systems, Stochastic Processes, UX
Teaching: Peer Mentor for Operating Systems (C and Linux) and UX development (React and JavaScript)

TECH SKILLS: Python, C, C++, Rust, Java, SQL, JavaScript, TypeScript, React, HTML, CSS, Swift, Linux, Git, Spark

WORK EXPERIENCE

Software Development Engineer Intern, Sisu Data, San Francisco, CA June 2023 - September 2023
- Reduced insight generation time bottleneck to increase user engagement by adding data warehouse region auto-detection to the Rust control plane to ensure optimal data locality during the data ingest step
- Took initiative on Helm chart cleanup, leveraging Kubernetes ConfigMaps to store associations
- Extended Rust internal tooling to allow triggering gRPC endpoints to detect warehouse regions for database back-fill
- Designed query execution plan observability platform to inform the direction of high-priority query simplification project
- Developed gRPC/Python APIs and React dashboard to enable execution plan retrieval and time-breakdown chart generation

Software Development Engineer Intern, Amazon Web Services, East Palo Alto, CA June 2021 - September 2021
- Designed and implemented developer tooling for Redshift that enabled engineers to quickly reproduce data-agnostic errors
- Developed catalog functions in C to extract names of tables and views from queries and trace down dependencies of views
- Developed the pipeline to retrieve the data definition languages from query texts with automatic dependency tracking
- Conducted comprehensive testing of catalog functions to validate behavior and cover edge cases

Innovations Intern, American Family Insurance, Madison, WI May 2020 - August 2020
- Developed reproducible webpages for prototypes and minimum viable products using HTML, JavaScript, and CSS
- Designed, implemented, and refined a user-centric interface based on customer feedback to ensure a seamless user experience
- Utilized AWS to set up databases and deploy serverless web applications for efficient user data collection and storage
- Managed AWS resources with Terraform to streamline workflow and automated the code delivery with CI/CD pipelines

ADDITIONAL EXPERIENCE

Baynana Resume Helper January 2023 - Present
- Self-initialize the web application with 4 partners to enhance resume writing processes with AI for 500+ users
- Lead the team to design and develop the website with React and JavaScript and continuously improve user experience
- Gather user feedback from interviews and provide agile updates on features including interactive UI and real-time chat
- Implement backend data storage with Supabase and incorporate it into the website to store, update, and retrieve user data
- Incorporate open-source tools and craft Latex templates to generate and preview PDF and Latex versions of resumes

Animal Audio Classification and Detection January 2020 - December 2021, September 2022 - Present
- Collect and process sample data to generate the training dataset and develop a testing pipeline to evaluate model performance
- Use convolutional neural networks to classify the animals based on the spectrogram of audios with Python and TensorFlow
- Achieve an accuracy of over 90% on small training datasets through the transfer learning and data augmentation techniques
- Develop a pipeline to streamline audio processing, detect, and classify frogs in the soundscape recordings across years
- Test the detection results with stratified sampling and analyze the frog mating patterns versus weather with detection results
- Published a paper as the first author with the title ”Classification of animal sounds in a hyperdiverse rainforest using convolutional neural networks with data augmentation” in the journal Ecological Indicators