Yuren Sun

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EDUCATION

Stanford University   September 2022 - June 2024
Master of Science in Computer Science, Information Management and Analytics Specialization, 4.04/4.00
Related Courses: Embedded Systems, Bioinformatics, Natural Language Processing, Mining Massive Datasets
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 in Computer Sciences, Economics, and Mathematics with Comprehensive Honors, 3.98/4.00
Related Courses: Algorithm, Database, Linear Optimization, Operating Systems, Stochastic Processes, UX
Related Awards: Holstrom Environmental Research Fellowship (2021), CS Golden Brick Award (2019 & 2021)
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, Tableau

WORK EXPERIENCE

Software Development Engineer Intern, Sisu Data, San Francisco, CA   June 2023 - September 2023
- Accelerated the data staging process with automated detection of the staging region closest to customer warehouses in Rust and stored YAML configuration with Kubernetes ConfigMaps
- Developed rust internal tools with existing gRPC endpoints to detect customer warehouse regions to back-fill the database
- Retrieved and logged the query execution plan during data staging with Java to enable in-depth analysis of slow queries
- Developed Rust gRPC and Python APIs, and React component to retrieve query execution plans and time-breakdown charts

Software Development Engineer Intern, Amazon Web Services, East Palo Alto, CA   June 2021 - September 2021
- Designed and implemented a local reproduction tool on non-data dependent issues to improve debug abilities for Redshift
- 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 ensure the feasibility of functionalities and coverage of 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

PUBLICATION

Sun, Y., et al. Classification of animal sounds in a hyperdiverse rainforest using convolutional neural networks with data augmentation. *Ecological Indicators, vol. 145,* 2022, p. 109621., https://doi.org/10.1016/j.ecolind.2022.109621.

SELECTED PROJECTS

Baynana Resume Helper   January 2023 - Present
- Design and develop Baynana resume helper website with React to enhance resume writing processes with AI for 500+ users
- 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
- Conduct research on the minimum number of samples required for the desired model performance with small datasets
- 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