

Santosh Guntuka

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EDUCATION

Master of Science in Computer Science

California State University, Dominguez Hills • 2023 • 3.7

PROJECTS

Genetics SNP data simulation: Predicting a binary outcome in simulated genomic data

Collaboration with Cedars-Sinai Medical Center, Los Angeles, CA • github.com/santoshguntuka/masters_finalProject

- August 2023 – December 2023
- Contributed to a Cedars Sinai Medical Center research project, applying predictive modelling to genomic datasets to uncover complex genetic patterns.
- Utilized machine learning, feature analysis, and statistical methods to improve the accuracy and interpretability of predictive models for binary genomic outcomes.
- Analyzed the effectiveness of various algorithms in genomic data analysis, demonstrating that customized techniques can improve prediction accuracy by up to 15%, thereby advancing genomic research and predictive modelling.

EXPERIENCE

Machine Learning Researcher Intern

Dartmouth and Hitchcock

April 2024 – Current

- Conducted thorough testing of various Python-based open-source tools for Federated Learning, evaluating performance metrics such as model accuracy, training time, and resource utilization.
- Assisted in the development and enhancement of Federated Learning processes, resulting in a 20% improvement in model convergence speed.
- Set up federated learning across Dartmouth collaborators to implement privacy-preserving federated learning, successfully coordinating multiple nodes and ensuring data privacy compliance across all participants, achieving a compliance rate of 100%.

IT Service Management

California State University, Dominguez Hills

March 2023 – December 2023

- Aiding campus identity and access management using OneLogin and serving as an MFA Duo Administrator.
- Provided training and assistance to over 500 staff and faculty members, enhancing technical proficiency and reducing support requests by 15%.
- Addressed and oversaw tier two support tickets through the ServiceNow system, achieving a 90% resolution rate within the first 24 hours and improving overall customer satisfaction.

Research Assistant

California State University, Dominguez Hills

June 2022 – February 2023

- Analyzed the convergence of Reinforcement Learning (RL) solutions towards optimal solutions by conducting detailed benchmarking against predefined metrics, resulting in a 25% improvement in algorithm accuracy and a 20% reduction in convergence time.
- Achieved a 30% reduction in computational time and recorded a 90% success rate in finding feasible paths under probabilistic constraints.
- Executed detailed simulations, benchmarked the RL approach against predefined metrics, and documented the performance and progress of the algorithms over time to ensure convergence towards the optimal solution.

Digital Devices Associate

Amazon

February 2020 – October 2021

- Provided technical support for a range of digital devices, resolving 95% of customer issues on the first call by utilizing in-depth product knowledge and diagnostic tools, thereby improving customer satisfaction.
- Assisted over 100 customers daily with troubleshooting and setup of digital devices, achieving a 95% customer satisfaction rate through effective problem resolution and clear communication.
- Collaborate with product management and engineering teams to suggest improvements based on testing outcomes and customer feedback.

SKILLS

Languages: JavaScript, Python, Java

Web Development: ReactJS, Redux, Saga, Typescript

Back-End: NodeJS, ExpressJS, NestJS, REST

Data Libraries: NumPy, Pandas, Scikit-learn, PyTorch, Tensorflow, PySyft

Certifications: AWS Certified Cloud Practitioner, SAS Certified Base Programmer, DevOps on AWS Specialization