Sharmisha Parvathaneni

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EDUCATION

Master of Science (MS), Computer Science *Aug 2022 - May 2024*
University of Illinois at Chicago, IL

SKILLS

Languages	Python, JavaScript, TypeScript, SQL, PL/SQL
Frontend	React, Redux, HTML, CSS, Angular, D3.js, Bootstrap
Backend	Node.js, ExpressJS, Django, Flask, Sequelize, Apache Hadoop
Cloud/Database	AWS, MySQL, PostgreSQL, MongoDB, MariaDB, Docker
Libraries & Tools	GIT, JIRA, Agile, Scrum, NumPy, Pandas, Tableau, CI/CD

WORK EXPERIENCE

Full Stack Developer, UIC *Jan 2023 - current*
Python, ReactJS, MySQL, GIT, Docker, MongoDB *Chicago, IL*

- Designed the CRADLE tool in ReactJS to effectively visualize and analyze phase diagrams and crystal planes.
- Restructured the MySQL database and optimized indexes, resulting in a 300% faster upload of new crystal structures (CIF files) and enhanced overall query efficiency.

Assistant System Engineer, Tata Consultancy Services *Oct 2021 - Aug 2022*
Python, ReactJS, MySQL, OAuth, GIT *Hyderabad, India*

- Developed user authentication (OAuth 2.0-based Single Sign-On (SSO) system) micro-service with integration and unit test coverage around of 90%.
- Migrated databases & applications from legacy servers to private cloud, leading to cost saving in infrastructure by 50%.
- Optimized the performance of critical REST APIs by up to 45% through strategic database schema redesign, query optimization and efficient indexing techniques, resulting in faster response times and more efficient system.
- Collaborated with developers and development lead to review and merge 30+ pull requests and architect new features.

Assistant System Engineer-Intern, Tata Consultancy Services *Aug 2021 - Oct 2021*
JIRA, Selenium, Technical Support *Hyderabad, India*

- Collaborated with the team to do reverse engineering, analyzing code quality, fixing bugs and logical errors.
- Worked on non-functional requirements such as CI/CD, Resiliency and Automation testing.

PROJECTS

Personal portfolio
AWS [S3, CloudFront, Route53, ACM], HTML, CSS, JS, CI/CD

- Enhanced web hosting with AWS S3, CloudFront, Route 53, and ACM, while automating updates through GitHub Actions for a seamless deployment process.

Electricity Price Prediction
Python, ML models, Jupyter Notebook

- Spearheaded comprehensive data analysis, overseeing preprocessing, and EDA for informed decision-making.
- Implemented a Decision Tree Regressor with an R2 score of 0.9 to predict prices. Increased the forecast accuracy by 30.3%.

Capturing urban pulses and its social fabrics
D3.js, NodeJS

- Developed an interactive urban visualization dashboard for showcasing urban cities and its social fabrics, utilizing computational topology (Reeb graphs, merge trees, piecewise linear functions on triangular meshes) and advanced text mining techniques.

Seed
Python, Django

- Built a Django-based web application with integrated data analysis and machine learning to provide farmers with precise crop recommendations, enhancing agricultural productivity.
- Trained a ML algorithm that detects the health condition of the plant. Increased the accuracy of the algorithm by 82%.

LEADERSHIP&INVOLVEMENT

- Attendee at Grace Hopper Celebration 2023 held at Orlando, FL.
- Guided 14+ young entrepreneurs with disabilities to lead and innovate through UIC's Entrepreneurship for Youth program.