

# Sharmisha Parvathaneni

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## EDUCATION

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- **University of Illinois Chicago** Chicago, IL  
*Master of Science in Computer Science* Aug 2022 - May 2024
- **Gokaraju Rangaraju Institute of Engineering and Technology** Hyderabad, India  
*Bachelor of Technology in Civil Engineering* Aug 2017 - July 2021

## SKILLS SUMMARY

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- **Languages & Frameworks:** Python, JavaScript, Java, ReactJS, D3.js, Node.js, Django, PL/SQL, HTML, CSS, Bootstrap
- **Cloud/Databases:** MySQL, PostgreSQL, MongoDB, AWS
- **Libraries & Tools:** GIT, JIRA, NumPy, Pandas, Tableau, CI/CD, Selenium, Kubernetes
- **Core Competencies:** Web Development, UI/UX Design, System Design, Database Management, Data Analysis, Microsoft Office Suite, Leadership, Client services

## WORK EXPERIENCE

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- **CME Department, UIC - Full Stack Developer** Jan 2023 - Current  
*Python, ReactJS, MySQL, GIT, Docker, MongoDB*
  - Designed the CRADLE tool in ReactJS to effectively visualize and analyze phase diagrams and crystal planes.
  - Restructured MySQL database and optimized indexes, resulting in 300% faster uploads of new crystal structures(cif files) and enhanced overall query efficiency.
- **Tata Consultancy Services - Assistant System Engineer** Oct 2021 - Aug 2022  
*Python, ReactJS, MySQL, OAuth, GIT*
  - Developed user authentication (OAuth 2.0-based Single Sign-On (SSO) system) and billing automation micro-services with integration and unit test coverage around of 90%.
  - Migrated databases and 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.
- **Tata Consultancy Services - Intern** Aug 2021 - Oct 2021  
*JIRA, Selenium, Technical Support*
  - 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

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- **Electricity Price Prediction** Jan 2023  
*Python, ML models*
  - Spearheaded comprehensive data analysis, overseeing data collection, preprocessing, and EDA for informed decision-making.
  - Implemented a Decision Tree Regressor with an R2 score of 0.9 to predict prices. Successfully increased the forecast accuracy by 30.3%.
- **Capturing urban pulses and its social fabrics** Jan 2023  
*D3.js, NodeJS, Angular*
  - 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** Aug 2022  
*Python, Django, SQLite3*
  - Built a Django-based web application utilizing data analysis techniques on extensive soil and season datasets 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%.
- **Emotion Detection** Jan 2019  
*Python, ReactJS, OpenCV, Web Audio API*
  - Built ReactJS app to detect facial emotions accurately and dynamically play music based on the user's expressions.

## LEADERSHIP& INVOLVEMENT

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- 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.
- Achieved Google Data Analytics certification from Coursera.