



# Sharmisha Parvathaneni

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## EDUCATION

**Master of Science (MS) in Computer Science**  
University of Illinois at Chicago, Illinois

August 2022 - May 2024

## SKILLS

<b>Languages</b>	Python, JavaScript, C, Matlab, SQL
<b>Frontend</b>	ReactJS, AngularJS, Redux, HTML, CSS, D3.js, Bootstrap
<b>Backend</b>	Node.js, ExpressJS, FASTAPI, Django, Flask, Sequelize, Apache Hadoop
<b>Cloud/Database</b>	AWS, Microsoft Azure, MySQL, PostgreSQL, MongoDB
<b>Libraries/Tools</b>	GIT, JIRA, Selenium, Agile, Scrum, NumPy, Pandas, Tableau, PowerBI, CI/CD, Linux

## WORK EXPERIENCE

- Web Developer, *UI Health*** Aug 2023 - Present
- Employed Excel (PivotTables, statistical functions) to assess resource needs of disability students in 12+ high schools.
  - Utilized CMS platforms and web technologies (HTML, CSS, JavaScript) to implement design and functionality improvements, resulting in a 40% increase in user engagement.
- Full Stack Engineer, *CME Department, UIC*** Jan 2023 - Present
- Designed the CRADLE tool in Angular to effectively visualize and analyze phase diagrams and crystal planes.
  - Optimized the performance of critical REST APIs by up to 45% and increased crystal data retrieval speed by 300% through strategic schema redesign and query optimization and efficient indexing techniques.
  - Designed a MySQL database from Excel sheets for ink materials, resulting in a 70% reduction in data access time and a 40% increase in analytical efficiency.
- System Engineer, *Tata Consultancy Services*** Aug 2021 - Aug 2022
- Developed user authentication (OAuth 2.0-based Single Sign-On (SSO) system) micro-service for a telecom billing and invoicing service with integration and unit test coverage of around 90%.
  - Implemented centralized API gateway with ExpressJS and Redis, leveraging AWS Elasticache for Redis. Achieved over 40% API latency reduction and significant microservices scalability enhancements.
  - Handled database migration, involving data export, dump files, and connection string updates, from AWS to Azure, leading to cost reduction by 50%.
  - Collaborated with cross-functional teams in an agile team environment to review and merge 45+ pull requests.
- Software Engineer, *Heighten Solutions*** July 2020 - June 2021
- Designed and implemented an automated inventory and deployment workflow using PnPjs, ReactJS, SharePoint, and Power Automate, reducing manual work by 40 hours per week and enhancing asset management efficiency and accuracy.

## PROJECTS

### Personal Portfolio

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

### Distributed File Storage System

- Developed a Node.js and ExpressJS-based distributed file storage system, incorporating file chunking and encryption for improved security and performance. Utilized MongoDB for metadata and Nginx for load balancing, enhancing system scalability and availability.

### Plant Disease Detection

- Built a Django web application integrating an efficient VGG CNN-F model for plant disease prediction, achieving 92.4% accuracy and an F1 score over 94.5%. This enables early detection and proactive crop protection for farmers.

### AirBnB Price Prediction

- Conducted EDA to identify crucial factors and implemented a Random Forest Regression model, achieving 85% accuracy in property price predictions, with outcomes visualized using MLlib in PySpark and Seaborn.

## LEADERSHIP & INVOLVEMENT

- Certified in Google Advanced Data Analytics course
- Guided 14+ young entrepreneurs with disabilities to lead and innovate through UIC's Entrepreneurship program.
- Won 2nd in a Data Analysis Hackathon conducted by the GRIET, India.