

# Madhurima Tummala

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## KEY SKILLS

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**Programming Languages:** Java, Python, JavaScript, C

**Web Development:** HTML, CSS, ReactJS, AngularJS, VueJS, NodeJS, ExpressJS, Django, Spring Boot, Selenium, Jest, Figma, AdobeXD, WCAG

**Database Technologies:** MySQL, PostgreSQL, MongoDB, Oracle, Firebase

**Cloud Computing:** Amazon Web Services, Google Cloud Platform, Microsoft Azure, Salesforce

**Data Visualization Tools:** Microsoft Power BI, Tableau

**Project Management Tools:** JIRA, Git, Wrike, Trello, Teamwork, Microsoft Office

## EDUCATION

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### Purdue University | Indiana, USA

*Master of Science in Computer Science*

*January 2022 – May 2023*

*3.7/4.0 GPA*

- Relevant Coursework: Software Engineering, Web Development, Human Computer Interaction, User Experience Design Ethics, Algorithm Design Analysis and Implementation, Heuristic Problem Solving, Computer Vision, Expert Systems, Network Security
- Independent Study: Application of Machine Learning Models

### Jawaharlal Nehru Technological University | Hyderabad, India

*Bachelor of Technology in Information Technology*

*June 2015 – May 2019*

*3.5/4.0 GPA*

- Relevant Coursework: Computer Programming, Data Structures, Database Management Systems, Design and Analysis of Algorithms, Software Engineering, Web Technologies, Operating Systems, Cloud Computing, Data Mining, Data Analytics, Information Security, IOT
- University's Theatre Club Head and Key Organizer of Technical and Cultural Events

## WORK EXPERIENCE

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### Information Technology Services, Purdue University | Indiana, USA

*ITS-UTS Consultant*

*August 2022 – May 2023*

- Provided faculty, staff, and students with technical assistance and training, resolving an average of 80 support tickets per week, ensuring satisfaction rate of 96%.
- Led 5 projects and collaborated with departments to develop customized solutions to improve productivity and cost savings.
- Maintained university's databases, ensuring data security and data accuracy by implementing backup and recovery solutions, reducing data loss incidents by 29%.
- Managed operations of university's website, including the maintenance of software and hardware, such that they were up to date and in compliance with the university's policies, resulting in 97% uptime.

### Department of Computer Science, Purdue University | Indiana, USA

*Teaching Assistant*

*August 2022 – May 2023*

- Teaching Assistant for Data Structures course.
- Facilitated 60 students with individual and group tutoring sessions to help them with their assignments and offered academic support.
- Delivered constructive feedback to students, which resulted in 98% of positive response to the course.

- Assisted the professor in preparation of course material, grading assignments, and maintaining 100% accurate records of student progress.

### **Department of Anthropology and Sociology, Purdue University | Indiana, USA**

*Research Assistant      February 2022 – July 2022*

- Offered technical support for extensive research related to Healthier Moms & Babies and Student Mental Health, to produce reports of the data collected, which created 21% of increase in the awareness of the topics among university students.
- Conducted automated data management such as data cleaning, data analysis, data representation, maintenance of databases and data security, resulting in 35% decrease of manual work.

### **TA Digital | Hyderabad, India**

*Software Engineer      March 2019 – December 2021*

- 2+ years of experience in software development life cycle, from requirement gathering and analysis to design, development, testing, and deployment.
- Created and maintained 4 software business applications namely Timesheets Portal, Customer Survey and Feedback Portal, Expense Reimbursement Portal and Organizational Portal, ensuring that quality business standards were met.
- Worked for Abbott Laboratories – House of Science, making a record of 31 days from the start date of creating the website until the date of go-live.
- Worked for American Association of Retired Persons, being an integral part of developing features for the rewards website such as filtered lists, pop up modals, search functionality, paginations, hidden gifts, and more, increasing 11% of users.
- Collaborated on defining, designing and implementing new features with cross-functional teams that included designers, developers, testing engineers, product managers and others.
- Communicated effectively with clients and team members such that quality of deliverables was assured, 100% of client requirements were satisfied, and deadlines were met.
- Investigated, examined, and promptly fixed software bugs, ensuring that a smaller number of bugs were reported, keeping the percentage of bugs below 5%.
- Promoted 2 times, received 5 special performer awards, and 1 synergy award for work contribution.

### **PROJECTS & PUBLICATIONS**

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- **Development of Lip to Speech Synthesis Model** – Implemented Lip2Wav model consisting of encoder and decoder using Convolutional Neural Networks with more than 70% accuracy rate.
- **Hate Speech Classifier** – Using NLP and ML models to classify text as hate speech with an accuracy rate of 93.01%.
- **Investigation of the Performance of Deep Learning Models for Classification of Breast Cancer from Histopathological Images** – Study of performance of deep learning models: VGG-11, VGG-13, VGG-16, and VGG-19, used for breast cancer detection with the help of histopathological images, using BACH and BreakHis datasets.
- **Career Path** – ReactJS Web Application that helps users consult and determine which career path would be ideal, based on their education, experience, and interests, having 3 user types.
- **ToGo** – ReactJS Web Application that deals with pick up and drop off stuff, connecting people to the nearest delivery executive who can take care of the task, having 3 user flows.

### **INTERESTS & HOBBIES**

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Technical Operations in Functional Areas, Reading, Writing, Travel, Photography