

# Lavanya Mishra

Software Engineer

## CONTACT INFORMATION:

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## SKILLS:

Vue • Pinia • JavaScript • React •  
Angular • UI/UX • RESTful API •  
Python • Flask • FastAPI • MySQL •  
NoSQL • MongoDB • Github Actions  
• Continuous deployment • Front-end  
development • Back-end  
development • Data analysis • Bash •  
Nginx • AWS • Scripting • Technical  
writing • Figma • AdobeXD • Scrum  
• Project management • Project  
documentation • Technical leadership

## EDUCATION:

Bachelor of Technology (BTech) in  
Mechanical Engineering  
Manipal Institute Of Technology,  
2019

## LANGUAGES:

Hindi (Native proficiency)  
English (C2)

## PROFESSIONAL SUMMARY:

Highly skilled Senior Software Engineer with over 4 years of experience in full-stack development. Proficient in various programming languages and frameworks, with a strong background in development, database management, and team leadership. Adept at collaborating with cross-functional teams to deliver high-quality software solutions.

## WORK EXPERIENCE:

### SOFTWARE DEVELOPMENT MANAGER

ZASTI, Chennai, India

April 2023 - November 2023

- Lead the development team in designing and implementing scalable and efficient software solutions for complex business requirements.
- Collaborated with founders and stakeholders to define project scopes, prioritize tasks, and ensure timely delivery of features.
- Mentored junior engineers, conducting code reviews, providing technical guidance, and fostering a culture of continuous learning and improvement.
- Implemented CI/CD pipelines to automate the software deployment process, increasing deployment frequency and reducing manual errors.
- **Project Description Document Generator:** Engineered a Project Description Document (PDD) Generator using OpenAI's API and LangChain API, with a Vue.js frontend and ChromaDB for vector storage. The tool automates the generation of detailed project descriptions by leveraging data from similar existing projects, reducing the time to produce an initial draft from 6 months to 2 weeks. Additionally, supervised an intern in developing deep learning models to analyze satellite imagery for tree coverage estimation over project timelines.
- **Project Management Dashboard:** Engineered a project management dashboard using FastAPI and React to oversee carbon project lifecycles managed by ZASTI and its partners. This platform facilitates enhanced tracking and coordination of project activities.
- **Project Financial Analyzer:** Designed and implemented a financial dashboard using Vue.js and FastAPI to project annual financial outcomes based on varying inputs like quality of hemp, biochar, and project area. Integrated with Excel using openpyxl for seamless data import and manipulation, enabling dynamic financial analysis and reporting.

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## IMPORTANT LINKS

- Portfolio - <https://nostalgician.in>
- Github - <https://github.com/chessmadridista>
- Medium - <https://medium.com/@lavanyamishra1996>
- StackOverflow: <https://stackoverflow.com/users/10074771/chess-madridista>
- LinkedIn: <https://www.linkedin.com/in/lavanyamishra1996/>

## PREFERENCES:

- Interested in projects involving web dev, mobile dev, AI and analytics.
- Enjoy collaborating with cross-functional teams to solve complex problems.
- Passionate about mentoring and fostering a culture of continuous learning.
- Passionate about building successful products and teams from scratch.

## WORK EXPERIENCE:

- **Hemp Product Analyzer:** Created a comparative analysis dashboard for hemp-based products using Vue, FastAPI, and openpyxl. This tool analyzes and displays differences between our products and competitors' offerings based on multiple metrics, aiding strategic product positioning and marketing decisions.

### SOFTWARE DEVELOPMENT ENGINEER

ZASTI, Chennai, India

December 2020 - March 2023

- Participated in Agile development sprints, contributing to the successful delivery of software increments.
- Conducted code reviews and provided feedback to peers, promoting best practices and code quality standards.
- **Syneos Project:** Developed a web scraper to collect raw data on a common eye disease from ophthalmology blogs, forums, and social media platforms like Amazon and Twitter to analyze pharmaceutical product performance. Utilized BeautifulSoup and Scrapy for data extraction.
- **Internal Web Scraper:** Contributed to frontend development for a tool designed to scrape information on government grants, improving data accessibility for project teams. Implemented using Vue.js 2.
- **Mental Health Web Apps:** Led the testing phase for multiple web applications designed to enhance mental health monitoring, ensuring functionality and user experience met design specifications.
- **ATOM:** Researched scientific calculations for managing carbon emissions in the Healthcare and Pharmaceutical sectors, and actively participated in the prototyping and MVP testing of a related dashboard. Employed Angular in development.
- **Cataract Surgery Analytics:** Conducted detailed data analysis on carbon emissions from cataract surgeries, creating foundational knowledge that informed further research. Documented processes and results, utilizing MS Excel and Python for data handling and analysis.
- **EyeSustain:** Managed the full lifecycle of a web app development from conception to deployment, calculating carbon emissions per cataract surgery. Implemented using HTML, CSS, JavaScript, jQuery, Material Design, MongoDB, and Flask.

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## ACCOMPLISHMENTS

- Secured First position in CHESS-open tournament organized by Manipal Institute of Technology held in 2016.
- Secured Second position in CHESS-open tournament organized by Manipal Institute of Technology held in 2017.
- Project titled "Investigating and identifying the critical factors influencing Mobile Payment in Manipal" under the guidance of Prof. Dr. Shiva Prasad H.C. in May 2019.

## WORK EXPERIENCE:

- **Carbon Calculator Prototype:** Directed the development, testing, and deployment of a web app to compute specific domain carbon emissions. Led and mentored an intern on frontend development with Vue, Vuetify, Vuex, Vue Router, and backend integration using Flask.
- **Carbon Projects Database:** Designed and implemented a database to categorize carbon-related projects from public domains using keyword sorting, enhancing stakeholder access to comparative metrics for new and existing projects.

## DATA SCIENCE INTERN

ZASTI, Chennai, India

February 2020 - November 2020

- **Gun Detection Using Deep Learning:** Developed and trained deep learning models using TensorFlow to accurately detect firearms in images, enhancing security and surveillance capabilities.
- **COVID-19 Detection from Medical Imaging:** Engineered and deployed deep learning models in TensorFlow for detecting COVID-19 from X-ray and CT scans, significantly improving diagnostic processes and speed.
- **CMS Dashboard for Mental Health Monitoring:** Designed and implemented a comprehensive Content Management System (CMS) dashboard that enables both doctors and patients to monitor mental health, facilitating better patient engagement and treatment monitoring.
- **Mental Health Dataset Research:** Conducted extensive research on datasets for mental health to develop models capable of early symptom detection, laying the groundwork for more proactive treatment approaches.
- **Education in Data Analysis and Development:** Acquired foundational knowledge in data analysis, data science, and software development principles, strengthening my technical expertise and application skills in diverse projects.