Megha Patel

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EDUCATION

Master of Science in Computer Science (MSCS) | GPA: 3.9 — **Stockton, CA**
University of the Pacific (UOP) — **Aug 2022 - May 2024**
Coursework: Web Development, Advance Software Engineering,UI/UX Design, Data Science, Data Analytics, Database Management System, Machine Learning in Cybersecurity, Computer Network Security, Techniques in Research

Bachelor of Engineering in Computer Engineer | GPA 3.94 — **Gandhinagar, In**
Gujarat Technological University (GTU) — **Aug 2019 - May 2022**
Coursework: Operating System, Data Structure, Analysis of Algorithm, Artificial Intelligence, SQL, Computer Networking

SKILLS

- **Programming Languages**: Python, JavaScript, TypeScript, Java, C++, R
- **Frameworks and Libraries:** React.js, Redux, Node.js, Express.js, Next.js, Angular, Bootstrap, RESTful APIs, Tailwind, WordPress
- **Developer Tools**: GitHub, NPM, Postman, MS Excel, R studio, VS code , Jupyter Notebook
- **Database**: MySQL, MongoDB, SQLite, Firebase, PostgreSQL

EXPERIENCE

Full Stack Developer | *Reel Talk* (CA, USA) — **Aug 2024 - Present**
- Leading the development of both front-end and back-end features for the Reel Talk platform using **React (Next.js)**, **TypeScript**, **Firebase**, **Node.js**, and **Express**.
- Integrated multiple third-party APIs (e.g. RAPID API), ensuring secure and efficient API calls, and optimizing data flow to reduce latency and API costs by **20%**.
- Regularly conduct **code reviews** to maintain code quality and ensure alignment with best practices, improving development efficiency and team collaboration.

Graduate Research Intern | *Center for Business and Policy Research (UOP)* (CA, USA) — **Oct 2023 – Aug 2024**
- Led a team of **5** interns in the end-to-end development of a comprehensive website for San Joaquin County's Community Pulse and San Joaquin County Local Agency Formation Commission (LAFCO) using **Wordpress** with a focus on responsive UI.
- Consolidated data from diverse government sources; presented actionable insights through clear and engaging tables and graphs in **Excel, Highchart.js** and **Tableau**. Highlighted trends and patterns for San Joaquin County's population, economy, and environment.
- Achieved a significant **30%** increase in website views and views per session, enhancing community engagement with data.

Software Engineer | *Brainy beam Pvt. Ltd.* (GJ, IND) — **Jan 2022 – May 2022**
- Engineered a machine learning-based time-phased prediction system called 'Sales Forecast' using **Django** (Python), which optimized distributor stock management by reducing stock outs by **20%** and improving inventory levels.
- Conducted extensive data preprocessing and cleaning with **Pandas** and **NumPy** to prepare high-quality input data, and utilized machine learning algorithms like **Linear Regression** and **Random Forest** to build predictive models, achieving a **15%** reduction in mean absolute error.
- Promoted interactive dashboards using **Chart.js** to visualize sales trends and forecast outcomes, enabling the sales team to make data-driven decisions and improve overall sales strategies.

Full Stack Developer | *CreArt Solution* (GJ, IND) — **May 2021 – Jun 2021**
- Crafted a rich user experience (**UX**) for an ethnic wear e-commerce platform, implementing key features such as user registration, product catalog management, shopping cart, checkout process, and order tracking, enhancing the platform's functionality and user engagement.
- Restructured interactive front-end features using HTML, CSS, **JavaScript**, and **Laravel** (PHP), supported by a **MySQL** database, creating a seamless shopping experience for users.
- Established an admin panel for managing products, orders, and customers, and optimized the website using responsive design and **SEO** best practices, improving visibility and boosting search engine performance by **10%**.

PROJECTS

Finance Dashboard
- Developed and deployed a personal finance dashboard using React, Node.js/Express, Chart.js, and MongoDB; enabled real-time expense and income tracking with dynamic charts, enhancing user financial insights by 20%
- Enhanced user experience by integrating **search**, **sorting**, **validation**, and **CRUD** operations for transactions, while ensuring secure and efficient data management through **RESTful API** endpoints.

Academic Advantages: A Student Support Application
- Created an interactive React application to facilitate 24/7 student access to Teaching Assistant (TA) information stored in the university's Student Support Center database. Implemented features for easy location of TA availability and contact details, enhancing accessibility to academic support resources.
- Designed and implemented **RESTful** web services using **Node.js** to seamlessly integrate the **React.js** frontend with the **MongoDB** database, ensuring efficient data retrieval and real-time updates for an optimal user experience.

Predicting H1b Visa Approval
- Innovated a predictive model using multiple machine learning algorithms (**logistic regression, decision tree, naive bayes, SVM,** and **random forest**) to forecast H1B visa application outcomes, achieving an **87%** accuracy rate on a validation set of **10,000** applications.
- Leveraged a complex dataset containing applicant demographics, job details, and employer characteristics to enhance understanding and provide insights into the H1B visa application process for employers and foreign workers.

PUBLICATION

Minh Dinh, Megha Patel, Tapadhir Das, and Raj Mani Shukla, "Small, but Mighty: Lightweight ML-enabled Intrusion Detection Framework for Vehicular Ad-Hoc Networks," in **2024 IEEE 3rd World Conference on Applied Intelligence and Computing (AIC)**, IEEE, 2024.

CERTIFICATES

Data Science in R – R basics – Harvard University & Data Analytics in R - Google
Front-End development - Coursera Certification – Meta(Coursera)
AWS Cloud Technical Essentials - Coursera