YASH DEEPAK DESHPANDE

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EDUCATION

Stevens Institute of Technology, Hoboken NJ   **Aug 2023 - May 2025**
Master of Science (MS) in Computer Science   *GPA: 3.87/4*
Relevant Coursework: Web Programming, Intro to Cloud Computing, Data Mining, Data Analytics and ML

University of Mumbai, Mumbai, India   **Jul 2017 - Jun 2021**
Bachelor of Engineering (BE) in Information Technology   *CGPA: 8.42/10*

SKILLS

Languages: Python, JavaScript, Typescript, Java, SQL
Databases: PostgreSQL, MySQL, MongoDB, Microsoft SQL Server, Redis
Frameworks & Libraries: React.js, Node.js, Express.js, FastAPI, Django, LangChain, Ghost CMS, Handlebars.js, Tailwind CSS
Tools & Technologies: Git, GitHub Actions, Docker, AWS, Postman, Pytest, Firebase, Render, LLM Fine-Tuning

PROFESSIONAL EXPERIENCE

Hanlon Financial System Center   **Hoboken, NJ**
Graduate Lab Assistant | Stevens Institute of Technology (Part-Time)   *Jul 2024 - May 2025*
- Revamped the lab's Ghost CMS website by developing new features and modernizing legacy code using JavaScript, Handlebars.js, and core web technologies, resulting in a 25% increase in user engagement.
- Improved website accessibility for visually impaired users by refactoring page structure, increasing the accessibility score by 30%.

Tata Consultancy Services (TCS)   **Mumbai, India**
Software Engineer | Full Time   *Jul 2021 - Jul 2023*
- Developed automated backend systems using RPA tools (Blue Prism and Pega) with integrated Python Scripts for data extraction, reducing manual effort by 40% for an Australian telecom client.
- Integrated automated systems with Microsoft SQL Server to perform data retrieval and updates during execution, supporting 10,000+ transaction records.
- Led API testing for telecom offers using Postman and SoapUI, identifying critical edge cases and achieving 99% functional accuracy across web, mobile, and agent-assisted platforms.
- Executed SQL-driven backend validation scripts using PostgreSQL for comprehensive data integrity checks, improving test coverage by 25% and reducing defect leakage by 30% through cross-functional collaboration.

PROJECTS AND PUBLICATIONS

SurroundShield – AI-Powered Environmental Risk Assistant (MERN Stack, Flask, LLMs, Databricks) [Link]
- Built an AI-powered risk assessment platform that delivers personalized safety guidance using user location, weather APIs, and health profile, achieving a response time under 3 seconds, for Chubb's AI Innovation Challenge.
- Fine-tuned LLaMA 3.3 (70B) with 1k+ scenarios on Databricks and served via Flask for context-aware responses.
- Implemented a full-stack MERN architecture ensuring seamless data flow between user, API, and AI layers.

PawPal - A Petcare Services Website (Node.js, Express.js, MongoDB, Handlebars.js) [Link]
- Created a platform connecting pet owners with care institutions, managing 200+ profiles and service bookings.
- Designed custom dashboards with RESTful APIs and JWT authentication for 100+ users to track appointments, service history, and personalized care analytics.
- Engineered lost & found tracking and community forums with search functionality and user interaction features.

Student Information Management System (JavaScript, MySQL, PHP, Ajax, PWA) [Link]
- Architected and deployed a centralized system for a university KJSIT Mumbai serving 2,000+ stakeholders with role-based access control and integrated modules for attendance, academic records, and event management.
- Eliminated manual processes through Admin Module with data encryption reducing paperwork by 40%.
- Managed scalable database system with 100K+ academic records, maintained in production for 4+ years.

Research Paper: Machine Learning Approach for Chemotherapy Suitability Prediction using Genomic Data [Link]
- Constructed a ML Model to predict chemotherapy suitability for breast cancer patients using genomic features.
- Achieved 600+ views and 100+ downloads; selected as finalist at Avishkar Research Convention 2021.