

Manoj Kumar Penugonda

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Results-driven Software Development Engineer with a strong foundation in designing, developing, and optimizing software solutions. Proficient in full-stack development, object-oriented programming, and cloud-based systems. Skilled in leveraging modern frameworks and tools to deliver scalable, high-performance applications. Experienced in agile methodologies, team collaboration, and troubleshooting complex technical challenges. Adept at improving system efficiency and implementing innovative solutions to meet business and user needs. Passionate about coding excellence and staying current with emerging technologies.

Technical Skills

Programming Languages: Python, C++, C#, Java, SQL, .NET, TypeScript, JavaScript, PHP, HTML/CSS, APIs (REST, SOAP), Golang | **Web Development:** React.js, Angular, Vue.js, Postman, NextJs | **Frameworks & Databases:** Spring Boot, Django, Laravel, MySQL, PostgreSQL, Oracle, JSON and XML Formats | **Testing Tools:** Cypress, Swagger, JUnit, xUnit, PEST | **DevOps :** Git, Docker, Kubernetes, Agile Methodologies, Test-Driven Development | **IDE:** Visual Studio, VS Code, PyCharm | **Coursework:** GCP, AWS, DBMS, SDLC, OOPS, Linux/Unix Administration, CI/CD, ML, Algorithms, AI, ETL.

Professional Experience

Software Developer Intern

VT Industries

May 2024 - Aug 2024

Developed the VT Online platform using C#, React, and TypeScript, delivering a responsive and intuitive interface to streamline departmental workflows. Designed and implemented robust RESTful APIs using C# and TypeScript to ensure seamless communication between front-end and back-end systems.

Key Achievements:

- Administered and optimized Microsoft SQL Server databases, enhancing data retrieval efficiency through advanced query writing and indexing.
- Performed detailed manual testing to identify and resolve over 15 bugs, ensuring functionality and adherence to performance standards.

Graduate Technology Assistant

University of Nebraska at Omaha

Jan 2024 - Dec 2024

Built and customized user-friendly dashboards using HTML, CSS, and JavaScript, ensuring accessibility and compliance with ADA standards to enhance usability. Optimized front-end performance by refining CSS stylesheets and minimizing JavaScript DOM reflows, significantly improving application responsiveness.

Key Achievements

- Collaborated with cross-functional teams to identify and address accessibility gaps, incorporating semantic HTML.
- Documented accessibility best practices and provided training to peers, enabling consistency in future development efforts.

Graduate Student Assistant

University of Nebraska at Omaha

Feb 2023 - Dec 2023

Designed and maintained relational databases using SQL, ensuring efficient data storage and retrieval processes for healthcare workflows. Integrated AWS services such as Lambda, S3, and CloudWatch to enable scalable data processing, secure storage, and real-time monitoring of health data workflows.

Key Achievements:

- Developed Python-based dashboards for data visualization, enabling healthcare professionals to analyze trends and make decisions.
- Documented technical processes and best practices, supporting seamless knowledge transfer and system maintenance.

System Development Engineer

InnoSoft Datalinks, Bangalore, India

Jan 2022 - Dec 2022

Designed and developed a client-facing data visualization platform using .NET, Java, and SQL, providing real-time insights from large datasets to support informed decision-making. Implemented automated testing workflows with Cypress to ensure the accuracy and reliability of system functionalities.

Key Achievements:

- Optimized database queries to enhance data retrieval speeds and improve platform responsiveness for end users.
- Validated system performance across multiple devices to ensure compatibility and a seamless user experience.

Software Engineer Intern

HCL Technologies, Bangalore, India

Aug 2021 - Dec 2021

Diagnosed and resolved software bugs by analyzing and debugging Python code to ensure stable application performance. Applied fixes and conducted rigorous manual testing to validate functionality and maintain application stability.

Key Achievements:

- Streamlined development workflows by identifying bottlenecks and implementing process improvements.
- Developed and implemented automation scripts using Python, improving operational efficiency and reducing manual effort.

Academic Projects

Commingled Remains Analytics (CoRA):

- Designed and developed a scalable system for managing comingled human remains using PHP and Laravel, enabling efficient data organization and retrieval for forensic and archaeological purposes.
- Conducted thorough manual and automated testing with Cypress and Pest to ensure system reliability and error-free deployment.

WordPress Website Deployment:

- Deployed WordPress website on AWS EC2, ensuring secure data storage through AWS S3 and database management within private VPC subnet using MySQL.
- Configured Amazon Route 53 for DNS management and integrated AWS CloudWatch for performance monitoring and resource utilization tracking.

CK Real Estate Platform:

- Built an interactive and responsive Django-based platform for users to search and filter properties, enhancing the overall user experience.
- Automated testing workflows using Cypress, ensuring a high-performing platform aligned with project timelines.

Education

Master's in Management Information Systems | University of Nebraska at Omaha (GPA: 3.7/4.0) | Jan 2023 - Dec 2024
Bachelor's in Mechanical Engineering | Chaitanya Bharathi Institute of Technology (GPA: 3.2/4.0) | Aug 2018 - Apr 2022

Certifications

AWS Certified Developer – Associate - AWS Training - Sep 2023 | Microsoft Azure Data Engineer Fundamental - LinkedIn - Dec 2022