Ayush Patel

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SKILLS

- **Quality Assurance:** Manual Testing, Test Case Development, Defect Identification, Regression Testing, Software Stabilization.
- **Test Automation Frameworks:** PyTest, GitHub Actions (CI/CD), Postman, Selenium.
- **Defect Tracking:** Jira, GitHub Issues.
- **CNC Machine Testing:** G-code Processing, Toolpath Simulation, Simulation Development.
- **Programming:** Python, Java, PHP.
- **Database Platforms:** SQL Server, MySQL, Oracle, SQLite.
- **Data Analysis:** Tableau, Power BI, IBM Cognos Analytics, IBM SPSS Modeler.
- **Technical Reporting:** Writing detailed test plans, reports and defect documentation.
- **Project Management:** Documentation, Process Improvement, Team Collaboration.
- **Technical Support:** Hardware/Software Troubleshooting, Network Diagnostics, Remote Support Tools.

EDUCATION & CERTIFICATIONS

Post-Graduate Certificate, Analytics for Business Decision Making

Mohawk College, Hamilton, ON | April 2024

- Gained experience in data validation and process optimization, applying analytical techniques to enhance business performance.
- Worked on projects requiring attention to detail and accuracy, which translated into effective test case development and quality assurance practices.
- Developed skills in data analysis and reporting that are critical for analyzing test results and improving software performance.
- IBM Certifications : Predictive Analytics Modeler, Business Intelligence Analyst, Enterprise Design Thinking.

Post-Graduate Certificate, Cyber Security Analytics

*Mohawk College, Hamilton ON | **Honours** | August 2023*

- Focused on identifying vulnerabilities and ensuring system stability through comprehensive testing and assessment.
- Participated in labs to test and evaluate security protocols, simulating real-world scenarios to ensure reliable and secure software deployment.
- Gained experience in incident response and troubleshooting, skills applicable to identifying defects and ensuring software stability in quality assurance.
- Microsoft Certifications: Azure AI fundamentals and Security, Compliance and Identity Fundamental.

Bachelor of Science, Computer Application and Information Technology

Sardar Patel University, Gujarat, India | July 2022 | GPA: 9.6/10

- Developed a strong foundation in software development and quality assurance, focusing on programming and database management.
- Completed projects that involved software testing, troubleshooting, and optimization, ensuring efficient system performance.
- Acquired hands-on experience in documentation and defect tracking, collaborating with development teams to test and enhance software reliability.

EXPERIENCE

Virtigold Bio Tech – Software Developer (Remote)
Permanent: September 2020 - September 2022 | 2 Years

- Conducted manual testing of web applications, identifying and tracking defects to ensure software stability and seamless functionality.
- Developed and optimized data-driven systems, reducing downtime by 20% and ensuring accurate data migration and validation.
- Collaborated closely with cross-functional teams to conduct quality assurance checks, ensuring the smooth integration of new features.
- Documented processes to aid in knowledge transfer and maintain development continuity.
- Performed regression testing after feature updates to ensure no negative impact on existing functionality.

Internship: March 2020 - August 2020 | 6 Months

- Assisted in developing and testing web applications, improving user experience and reducing technical issues by 10%.
- Participated in manual and performance testing to validate system enhancements.

PROJECTS

1. **CNC Machine Simulator with 2D G-code Toolpath Visualization**
   Technologies Used: Flask, SQLite, Python, PyTest, GitHub Actions
- Developed a very basic CNC Machine Simulator that processes G-code, simulates toolpath in a grid-based 2D interface, and visualizes tool movement.
- Implemented a feature to upload G-code files, process them, and display tool movement based on the parsed code.
- Created detailed logs that capture tool positions and simulated machine movements, enabling error detection and debugging.
- Developed test cases using PyTest to ensure the accuracy of G-code processing and simulation.

2. **Login Alert System (Python)**
   Technologies Used: Python, Email API, System Monitoring Tools
- Developed a Python-based login alert system with a focus on testing email notifications and system stability.
- Executed manual test cases to ensure correct login alerts and system performance.
- Identified and resolved defects in the notification system, improving reliability and functionality.
- Created a tool that captures login details and sends real-time security alerts (a tool that detects when a user logs into their computer and automatically takes a picture using the webcam. The system sends an email with the picture and login details to the user).

3. **Task Management API with Web Interface**
   Technologies used: Flask, SQLite, SQLAlchemy, HTML, JavaScript, Bootstrap, Pytest, Git
- Developed a task management system with a responsive web interface and API endpoints, incorporating features like task creation, updates, deletion, and scheduling.
- Tested API functionality and user interface through both manual testing and automated tests, ensuring stability and performance.
- Integrated database persistence using SQLite and implemented data validation to enhance reliability.