KATHAR PATCHA ABDUL RAHIM

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OBJECTIVE

Motivated Master's student in Applied Computing (AI Stream) at the University of Windsor, with a strong foundation in software development, quality assurance, and DevOps practices. Seeking to contribute to innovative projects by leveraging skills in developing scalable applications, ensuring software quality, and optimizing deployment pipelines. Passionate about delivering efficient and secure solutions while advancing my technical expertise and problem-solving abilities.

TECHNICAL SKILLS

- **Programming Languages**: Java, Python, C, C++, JavaScript, Shell, Unix
- **Web Development**
  - **Frontend**: HTML, CSS, JavaScript, Vue.js
  - **Backend**: Flask, Django, Spring Boot, RESTful APIs
- **Software Development**: Socket Programming, Data Structures, Design Patterns
- **Databases**: MySQL, MongoDB
- **Tools & Cloud**: AWS, Jenkins, JIRA, Git (GitHub, Bitbucket), IntelliJ, Eclipse, Sonar
- **Testing & QA**
  - **Automation Frameworks**: Selenium, Playwright, UFT, Cucumber, TestNG
  - **API Testing**: Postman
- **AI & Machine Learning**: Neural Networks, Model Optimization
- **Productivity**: MS Office (Word, Excel, PowerPoint)

EDUCATION

Master's in applied computing, Artificial Intelligence Stream **Jan 2024 – Present**
University of Windsor | Windsor, ON | 3.4/4

- Final semester of program requires a 4- or 8-month internship would start in January 2025.

Bachelor's in computer science and engineering **Aug 2016 – Oct 2020**
Anna University, Chennai | Chennai, India | 8.6/10

- Completed a 4-year B.E. in Computer Science and Engineering from Anna University, graduating with First Class with Distinction with an overall CGPA of 86%

WORK EXPERIENCE

Software Development Engineer in Test | Genesys Telecom Labs Pvt Ltd **May 2022 – Dec 2023**

- **Designed Scalable Automated Testing Frameworks**: Created and implemented over 150 automated test scenarios (API, UI, end-to-end) using **Java** and **TestNG**, improving deployment speed by 30% and ensuring **code reliability**.
- **Enhanced Speech-to-Text Testing**: Led testing and optimization of Speech-to-Text feature components, achieving seamless integration and high accuracy in transcript functionality, contributing to the **feature's overall performance**.
- **Developed Internal Productivity Tools**: Built web applications to automate repetitive testing tasks using flask and react, reducing overhead by 20% and enhancing **workflow efficiency** for the team.
- **Comprehensive Testing Expertise**: Executed API, UI, and full-cycle end-to-end testing across multiple deployments, improving product quality and delivering **stable, client-ready solutions**.
- **Collaborated in Agile Environments**: Worked closely with cross-functional teams in **Agile/Scrum** settings, integrating continuous feedback and quick iterations.

Associate Software Engineer | Accenture Solutions India Pvt Ltd **Jan 2021 – May 2022**

- **Advanced Test Automation Initiatives**: Automated 200+ test cases with **Selenium** and **Java**, boosting test coverage by 40% and reducing testing time by 15%, optimizing the **release cycle**.
- **Enhanced System Stability**: Identified and resolved over 50 critical issues during **system and integration testing**, leading to a 20% decrease in post-release defects and significantly improving application reliability.

- **Continuous Testing for Web Applications**: Spearheaded ongoing testing for live web applications, ensuring smooth deployments with minimal disruptions and maintaining **high availability**.
- **Recognized for Excellence**: Awarded top 10 tester status and placed on the **Wall of Fame** for consistent high-quality performance and dedication to producing **error-free software**.
- **Initiated CI/CD Practices**: Assisted in automating test integration within **Jenkins pipelines**, facilitating seamless deployment and alignment with **DevOps practices**.

PROJECTS – *view all*

Developed a Protein Content Claimer Application **Sep 2024 - Dec 2024**
University of Windsor | Windsor, ON

- **Protein Content Claimer:** Designed and developed an application in collaboration with the Guelph Research Center to determine if a protein source meets regulatory requirements.
- **Technologies Used:** Built using Flask, SQLite, NLTK, Bcrypt, and socket programming, with a focus on accurate data analysis and secure authentication.
- **User Experience:** Created a user-friendly interface to input, process, and validate protein data efficiently, providing clear results based on regulatory criteria.

Deep learning-based driver distraction detection **May 2024 - Aug 2024**
University of Windsor | Windsor, ON

- **Constructed Deep Learning Model:** Constructed a CNN-based driver distraction detection system recognizing ten different driving activities.
- **Achieved High Accuracy:** Attained a test accuracy of 99.24% using an ensemble of DenseNet121 and custom CNN architecture (DARNET).
- **Enhanced Detection Performance:** Optimized pre-trained models and custom CNN architectures, improving classification accuracy and robustness for real-time distracted driving detection.

Human vs LLM - Text Detection **Jan 2024 - Apr 2024**
University of Windsor | Windsor, ON

- **Constructed AI Model:** formulated a model to detect AI-generated text, achieving 86% accuracy.
- **Refined Classification Models:** Enhanced binary and multi-class classification models to meet precision targets.

Web-Based Work Life Simulation **Jan 2024 - Apr 2024**
University of Windsor | Windsor, ON

- **Built Educational Application:** Developed a web application simulating work environment for students.
- **Partnered with Companies:** Facilitated live training and task completion to aid student job readiness.

JOURNALS

Enhanced Prototype for Security and Health Using IoT **Jan 2020 - May 2020**
Anna University | Chennai, India

- **Developed Health Monitoring Device:** Designed a wristwatch prototype to monitor health and report emergencies.
- Published in international journal of Research in Engineering, Science and Management as **"Enhanced Device for Security and Health Purpose Using IOT"** with Volume-3, Issue-5, May-2020, ISSN: 2581-5792.

ACHIEVEMENTS

Best Commercial Feasible Idea | **Genesys Telecom Labs Pvt Ltd** **May 2022 - Dec 2023**

- **Sustainability Initiatives:** devised a prototype to reduce carbon footprints, winning recognition for innovation.

Application Development | **Genesys Telecom Labs Pvt Ltd** **May 2022 - Dec 2023**

- **Chrome Extension:** Created a tool to streamline navigation within the Genesys cloud.
- **Web Application:** Built a platform to simplify creation of applications, reducing setup time.