

# KATHAR PATCHA ABDUL RAHIM

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## OBJECTIVE

Dynamic and motivated Master's student in Applied Computing (AI Stream) at the University of Windsor, with 3 years of experience in software development, quality assurance, and DevOps practices. Proficient in developing scalable software solutions using C#, .Net 8, JavaScript, Python, and Java, with hands-on experience in automation testing (Selenium, Playwright), RESTful APIs, and CI/CD pipelines. Skilled in cloud technologies including AWS, Azure, Docker, and Kubernetes, along with databases like MySQL, MongoDB, and PostgreSQL. Adept in frontend technologies like React and Angular and backend frameworks like Flask and Spring Boot. Passionate about delivering high-quality software at Rocket Innovation Studio, contributing to innovative projects, and advancing my technical expertise.

## TECHNICAL SKILLS

- **Programming Languages:** C#, JavaScript, Python, Java
- **Web Development**
  - Frontend: HTML, CSS, JavaScript, React, Angular 17+
  - Backend: .Net 8, Flask, Django, Spring Boot, RESTful APIs, Node.js
- **Software Development:** Socket Programming, Data Structures, Design Patterns
- **Databases:** MySQL, MongoDB, PostgreSQL, DynamoDB
- **Tools & Cloud:** AWS, Azure, Docker, Kubernetes, Jenkins, Git (GitHub, Bitbucket), JIRA, Microsoft office suite
- **Testing & QA**
  - **Automation Frameworks:** Selenium, Playwright, TestNG, Appium
  - **API Testing:** Postman, RESTful APIs, JMeter, Load Testing, Performance Testing
- **Development Methodologies:** Agile, Scrum, Kanban

## EDUCATION

**Master's in applied computing, Artificial Intelligence Stream**  
University of Windsor | Windsor, ON | 3.5/4

Jan 2024 – Apr 2025

**Bachelor's in Computer Science and Engineering**  
Anna University, Chennai | Chennai, India | 8.6/10

Aug 2016 – Oct 2020

## WORK EXPERIENCE

**Academic Intern | Semper8**

Jan 2025 – Present

- Developed and optimized WebRTC applications using Python, React, React Native, and JavaScript, ensuring seamless real-time communication across platforms.
- Conducted unit testing, load testing (using JMeter), and performance testing to enhance application stability and efficiency under varying network conditions.
- Performed cross-platform testing using Appium and Selenium, ensuring consistent user experiences across web and mobile devices.
- Implemented CI/CD workflows with GitHub, YAML, and Docker, automating test execution with Pytest and managing virtual devices via Android Studio.
- Deployed the project on AWS Cloud, utilizing AWS S3 for storage and ensuring scalable, reliable application performance in the cloud environment.

**Software Development Engineer in Test | Genesys Telecom Labs Pvt Ltd**

May 2022 – Dec 2023

- Led end-to-end testing for Speech-to-Text features in Workforce Engagement Management (WEM), designing and developing custom automation frameworks using C# and .Net 8 with advanced design patterns (e.g., builder pattern).
- Designed comprehensive test plans, conducted review meetings with cross-functional teams, and managed tasks using JIRA with Bitbucket for code versioning.
- Implemented CI/CD pipelines in Jenkins, integrating automated tests via Groovy, XML, and Jenkins UI; performed UI testing with Selenium and C#, and API testing with Postman and automation framework.

- Enhanced team productivity by creating internal tools with JavaScript, Vue.js, Python, Flask, HTML, CSS, and API calls; utilized Sumo Logic for log analysis.
- Worked with AWS S3 for cloud storage and used DynamoDB for database management.
- Awarded the All-Star Award for outstanding framework development and critical bug identification in redaction features.

#### Associate Software Engineer | Accenture Solutions India Pvt Ltd

Jan 2021 – May 2022

- Developed automated test cases using C# and Selenium with the Page Object Model and performed manual testing through ALM for a healthcare client (Kaiser Permanente).
- Executed regression testing on web applications using remote machines and Jenkins, while managing database operations with SQL for data validation.
- Optimized test data management by implementing an Excel-based data retrieval method, reducing complexity and improving test efficiency.
- Enhanced UI testing by integrating screenshot capturing and error logging mechanisms, earning recognition as one of Accenture's top 10 Software Engineers.

### PROJECTS – [view all](#)

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#### Protein Content Claimer Application

Sep 2024 - Dec 2024

University of Windsor | Windsor, ON

- Designed and developed an application in collaboration with the Guelph Research Center to determine if a protein source meets regulatory requirements.
- Utilized Flask, SQLite, NLTK, Bcrypt, and socket programming to ensure accurate data analysis and secure authentication.
- Created a user-friendly interface for efficient protein data input, processing, and validation, delivering clear results aligned with regulatory standards.

#### Deep learning-based driver distraction detection

May 2024 - Aug 2024

University of Windsor | Windsor, ON

- Engineered an advanced CNN-based driver distraction detection system capable of classifying ten distinct driving behaviors, enhancing road safety applications.
- Achieved 99.24% test accuracy by integrating DenseNet121 with a custom-designed CNN architecture (DARNET), leveraging ensemble learning for superior performance.
- Enhanced model robustness and real-time detection efficiency through meticulous optimization of pre-trained networks, fine-tuning hyperparameters, and applying advanced data augmentation techniques.

#### Human vs LLM - Text Detection

Jan 2024 - Apr 2024

University of Windsor | Windsor, ON

- Developed an AI model to detect AI-generated text, achieving 86% accuracy, using natural language processing (NLP) techniques and pre-trained transformers.
- Enhanced binary and multi-class classification models, applying feature engineering, hyperparameter tuning, and cross-validation to improve precision and recall for text distinction.
- Optimized model performance through data augmentation and transfer learning, enabling better generalization and handling of diverse text patterns.

#### Web-Based Work Life Simulation

Jan 2024 - Apr 2024

University of Windsor | Windsor, ON

- Developed an interactive web application to simulate a work environment, aimed at enhancing students' job readiness by offering live training and task completion experiences.
- Collaborated with industry partners to integrate real-world training modules, ensuring the simulation accurately reflected workplace dynamics and expectations.
- Built using Bootstrap for responsive design and SQL for data management, alongside other relevant technologies, to provide a seamless and engaging user experience.

### CERTIFICATIONS – [view all](#)

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- **Learning Spring with Spring Boot**
- **Web Development: Full Stack and Front End**

LinkedIn Learning  
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