

# KARTHICK VELMURUGAN

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Passport : V3996725 (Valid up to Dec 2031)

## SUMMARY

Highly motivated and detail-oriented Software Automation Test Engineer / Software Development Engineer in Test (SDET) with 2+ years of experience in designing, developing, and executing automated test scripts. Proficient in various testing frameworks and tools, with a strong background in software development life cycle (SDLC) and quality assurance. Adept at identifying bugs and ensuring the delivery of high-quality software products.

## SKILLS

- Test Automation: Android & iOS
- Programming Languages: Java, Python, JavaScript
- Testing Frameworks: Espresso, Appium, Selenium, JUnit, TestNG, JetPack Compose
- Tools: JIRA, Jenkins, GitHub, Copilot AI, Android Studio, XCode, Eclipse
- Databases: MySQL
- Operating Systems: Windows, MacOS
- CI/CD: Pipeline and YML Files
- Others: Agile Methodologies, API Testing, UI Testing, E2E Testing, Regression Testing

## EDUCATION AND TRAINING

04/2022

**Master of Technology, Software Engineering**  
**Vellore Institute of Technology**, Vellore, India

- 8.77 / 10.0 CGPA
- Publications and Presentations: Sentiment Analysis of Covid-19 Twitter Data using Deep Learning Algorithm  
(<https://www.sciencedirect.com/science/article/pii/S1877050924010007>)

04/2017

**12th Grade**  
**Narayana Educational Institutions**, Hyderabad, India

- 96 Percentage

04/2015

**10th Grade**  
**Noble Matriculation School**, Virudhunagar, India

- 99 Percentage

## CERTIFICATIONS

- ISTQB Certified Tester – Foundation Level

## EXPERIENCE

07/2022 - Current

### **Automation Test Engineer, Tata Consultancy Services, Chennai, India**

- Developed and maintained automated test scripts for Android and iOS applications using Espresso, Appium and Selenium, ensuring comprehensive test coverage and high-quality releases.
- Utilized Java, Python, and JavaScript to build and enhance automation frameworks, driving efficiency and reliability in the testing process.
- Integrated automated tests into CI/CD pipelines with Jenkins and GitHub, facilitating continuous integration and continuous deployment for rapid and reliable software delivery.
- Conducted API Testing, UI Testing, E2E Testing, and Regression Testing to validate functionality, performance, and user experience across different platforms and environments.
- Leveraged tools such as JIRA for defect tracking and project management, Copilot AI for coding assistance, JetPack Compose for Android UI development, and IDEs like Android Studio, XCode, and Eclipse for development and testing.
- Managed databases using MySQL, ensuring data integrity and seamless integration with test scripts.
- Worked with Windows and MacOS operating systems to ensure compatibility and performance across different environments.
- Adhered to Agile methodologies, participating in daily stand-ups, sprint planning, and retrospectives to foster a collaborative and iterative development process.
- Collaborated with cross-functional teams to identify, document, and resolve defects, ensuring timely delivery of high-quality software.
- Stayed updated with the latest QA trends and technologies, continuously improving automation practices and tools to enhance testing efficiency and effectiveness.

## PROFESSIONAL PROJECTS

### **Xfinity App for Telecommunication and Media**

- Performed smoke, sanity and Regression testing for both iOS and Android platforms on this Xfinity app which essentially control user internet provided by Comcast, along with its feature testing such as Parental controls, Bill payments, Hotspots, Security sensors, CCTVs, door locks etc., Identified defects in the app and tracked them using JIRA and wrote test cases for each of the scenarios using test case management tool called ALM Octane

### **Native Automation Testing on Xfinity App using Espresso for Android and Kif for iOS**

- Developed test scripts to validate the UI of the Xfinity App by mocking the entire API calls and using test frameworks like Espresso and KIF to validate the UI elements present on the app along with implementing Ci/CD pipelines to run the scripts on GitHub actions

### **Appium Real Device testing**

- Implemented Page Object Model (POM) to test the Xfinity app with real time user accounts and its features using Appium for Android Driver and iOS Driver and Selenium for WebDriver. Also, used TestNG framework to run the tests in Appium Local server and also hosted a server on SauceLabs to run the scripts on remote real devices. Allure reporting was also implemented and designed to get the test reports.

PERSONAL PROJECTS

Sentiment Analysis of Covid-19 Twitter Data using Deep Learning Algorithm

- Published a paper on Sentiment analysis using Deep learning which identifies and classifies Twitter tweets into positive/negative/neutral emotions using deep learning algorithms such as Artificial Neural Network (ANN) and Long Short-Term Memory (LSTM)

Digital Image Processing for Diabetic Retinopathy

- Implemented a pre-trained model using MATLAB and DIP to find Diabetic Retinopathy disease using a dataset of over 200,000 iris images

Web Application to manage Pharmacies

- Designed and developed a Pharmacy Inventory management System using HTML and CSS for Front End and Php for backend including validations and used phpMyAdmin as a database for the inventory management

Credit Card Fraud Detection using Python

- Worked on developing the source code of an App which could find fraudulent credit card numbers with the help of machine learning algorithms usable in python such as NumPy, SciKit, Pandas and TensorFlow

FireWall Implementation and Testing

- Developed an IP Table with white list and black list IP addresses for the firewall using computer network commands

LANGUAGES

Tamil:First Language

English:	C2	Telugu:	B1
Proficient (C2)		Intermediate (B1)	
German:	A1		
Beginner			

ACTIVITIES AND HONORS

- Published a paper on "Sentiment Analysis of Covid-19 Twitter Data using Deep Learning Algorithm" in ScienceDirect
- Attended Workshop on Microsoft GitHub Copilot AI and its peer-programming capabilities
- Completed Linkedin learning courses on Generative AI including prompt engineering
- Awarded "On-The Spot Award" by TCS for securing first place in Information Security Quiz conducted allover Chennai
- Awarded "Star of the team" award by TCS and Comcast for proficient working and developing Page Object Model in Appium
- Completed two of the certification courses offered by NASSCOM Future skills on Cyber security
- Head of a hackathon team during Google Engine and Python Workshops in VIT