

# Prasanth Sagar Kottakota

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## PROFESSIONAL SUMMARY

Software Engineer with 3+ years of experience in Python, Software development, Machine Learning, System testing, Quality Assurance, and Test automation. Proven track record in reducing pre-release defects by 25% and post-release defects by 15%. Skilled in analyzing test results and providing insights, contributing to a 20% increase in product quality. Experienced in building robust test automation frameworks and integrating testbeds using API calls.

## EDUCATION

**Syracuse University, NY, USA**      **MS in Computer Science** | GPA : 3.93/4.00      *August 2022 - May 2024*  
- Lectured a class of 60+ students with Prof. J.J. Waclawski, emphasizing Agile software implementation.  
- Proficiently instructed unit testing in **Java, Python, and C++** using **JUnit, pytest, and Google Test** frameworks.  
- Syracuse University Graduate Assistantship Award (Fall 2023 and Spring 2024).

**NITK Surathkal, KA, IN**      **B.Tech in Computer Science and Engineering** | GPA : 3.55/4      *August 2016 - May 2020*

## TECHNICAL SKILLS

**Programming Languages** : Python, C++, SQL, HTML, JS, Shell Scripting, Haskell.

**DataBases** : SQL Server, MySQL, PostgreSQL, MongoDB, Amazon RDS.

**Frameworks/Lib** : RESTful API's, Django, Selenium, Appium, Pytest, gtest, Pandas, Scikit-learn, NLTK, XAMPP.

**Developer Tools and IDE's** : Git, GitHub, Wireshark, tcpdump, Postman, Docker, Kubernetes, Jenkins, GitHub Actions, MS Excel, Power BI, Jira, Confluence, IXIA Breaking Point, VMWare, Agile/SCRUM, Visual Studio Code, Android Studio.

**Cloud** : AWS (EC2, Lambda, SQS, SNS, S3, RDS, Athena, DynamoDB, IAM, ECS).

**Networking and OS** : Linux (Ubuntu, fedora), Windows, SSH, TCP, UDP, IP, ICMP, FTP, DNS, SSL, HTTP, HTTPS, OSI Layers.

**Certifications** : Machine Learning, AWS Solution Architect Associate (2024), Google Data Analytics Professional (2022).

## EXPERIENCE

**Teaching Assistant(ML and Software Engineering)** | Syracuse University, Syracuse, NY      *August 2023 - May 2024*  
- Designed efficient priority affinity scripts for optimizing process scheduling in Operating Systems.  
- Managed 14 group projects using **Agile sprints** and planning strategies across various programming languages.  
- Engineered robust data pipelines(**ETL**) leveraging **AWS infrastructure** and **Apache Spark**, employing **Lambda** architecture for real-time and batch processing of time-series data.  
- Employed **supervised algorithms** such as Linear Regression, Logistic Regression, Decision Trees, Random Forest and Naive Bayes for data classification initiatives, enhancing **predictive analytics** capabilities.

**Software Engineer** | McAfee, Bangalore, India      *August 2020 - July 2022*  
- Developed **Python** microservices with **JS** and **Django** using **AGILE** methodology and Test-Driven Development.  
- Engaged in NSM **UI Automation** Project, which involved Python and Selenium to systematically assess **350+ UI** elements on webpages. Delivered metrics-based insights for improved testing efficiency and quality assurance.  
- Integrated **Jenkins** for **CI/CD** pipelines, enhancing deployment automation and reducing time-to-market by **2 weeks** per release, while improving deployment frequency by **50%** and reducing failure rates by **25%**.  
- Configured and managed complex test environments including **60+ client-server setups, 40+ McAfee IPS devices, and 5+ VMware ESXi, traffic simulator** devices, ensuring seamless testing operations.  
- Executed thorough Release testing(**E2E**), identifying **80+** high severity bugs across **Regression, Performance, Upgrade, Acceptance, Sanity and Hetero Testing**. Collaborated cross-functionally for prompt issue resolution.  
- Reduced testing time by a substantial **2 weeks** for each of the **12+ releases** by incorporating reusable automated test scripts and **CI/CD** pipelines, showcasing my pivotal contribution to automation and teamwork.  
- Played a key role in maintaining and updating **test documentation**, including **test plans** and **test cases** in **Jira**.

**Internship** | NITK Surathkal, Mangalore, India      *June 2019 - May 2020*  
- Created automated scripts using **Python and Bash** scripting languages to streamline data extraction from over 50+ Git repositories, reducing manual effort and increasing efficiency in issue identification.

## PROJECTS

**Reddit-Based Sentiment Analysis of Israel-Palestine Conflict** | [link](#), Data Mining, NLP      *August 2023 - December 2023*  
- Employing the **Python Reddit API Wrapper (PRAW)**, I gathered **50,000+** comments and metadata on conflict.  
- Preprocessed data and used **VADER sentiment analysis** on Reddit posts to categorize them into 3 sentiments, improving sentiment trend comprehension.

**Automated McAfee NSP Performance Testing** | Python, Restful API, Selenium      *July 2021 - July 2022*  
- Led 11-month project automating network security performance testing using **Ixia BreakingPoint API's and Python** which significantly reduced testing time from 6 to 4 weeks. And integrated to a testing framework.