





AVRAAJ MATHARU

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EXPERTISE & SKILLS

- **AI / ML** - Alchemist providing guidance from fundamentals to advanced topics, excelling in evaluating predictive performance and navigating the landscape of Deep learning. Python, Scikit-learn, Tensorflow, Numpy, Pandas, Matplotlib, Seaborn, Decision Trees, Confusion Matrix, KNNs, Logistic Regression, SVM, LangChain, RAG, Neural Networks, CNN, Deep Learning, HyperParameters, Reinforcement Learning.
- **DevOps**- Linux(ARM & X86 architecture), Shell / Bash Scripting, Creating and Maintaining VMs & Servers, Vagrant, Rosetta, Developing and maintaining CI /CD pipelines, Containerization - Docker images & containers, Kubernetes, Terraform, YAML file configurations, GitOps, Azure DevOps, AWS CodeBuild, AWS CodePipeline, Jenkins, Ansible.
- **Automation** - Java, Selenium, Appium, BDD, Cucumber, Gherkin, Page Object Model, Robot, Tosca, POSTMAN, ReadyAPI, MOCHA, Jest, CHAI, WebdriverIO, ELK / OLK Stack, Building CI /CD pipelines, JIRA, Keyword driven / Data driven/ Hybrid frameworks and more across Agile and Waterfall SDLC methodologies.
- **Software Development** - JavaScript, Node.js, ReactJS, JSX, jQuery, HTML, CSS, APIs, and Bootstrap.
- **Cloud platforms** - AWS & MS Azure
- **Operating Systems** - Windows, MacOS, Linux, Ubuntu, Fedora, CentOS.

REFERENCES

Darren Coupland (EVP, Head of Sogeti UK)

 darren.coupland@uk.sogeti.com

Gary Moore (VP, Sogeti UK)

 gary.moore@uk.sogeti.com

Declan Griffin (Sales Director, Capgemini /Sogeti UK)

 declan.griffin@sogeti.com

MEMBERSHIP & REPRESENTATIONS

- Lead Technologist at Sogeti UK
- UK Guild Lead for Innovation, AI & New technologies
- UK Representative for Global Architects,
- UK Representative for AI/ML
- Member of SogetiLabs UK

WORK EXPERIENCE

AI / GenAI Architect

Capgemini UK Plc (Sogeti)

Current

- Contributed to **GenAI Amplifier** (In house GenAI tool) development, enhancing functionality and usability.
- Implementation of **LangChain** and **RAG (Retrieval Augmented Generation)** for **GenAI Amplifier**
- Contributed towards the **GenAI Amplifier Architecture** MsAzure and AWS.
- Feature owner for **Code Generation** and **Code Transformation** features.
- Implemented **SonarQube** and **GitHub security** scans in **Azure DevOps** pipeline via **Docker Containers** and **GitHub Actions**.
- Created and managed **AVMs, Azure Blob storage, ACI, AKS**.
- Led **front-end features development** for GenAI Amplifier: **code generation, refactorization, and test case generation**.
- Applied **coding best practices** and **React Router DOM** for optimized page load performance.
- Actively engaged in brainstorming, **code reviews**, and team meetings to improve tool functionality.
- Involved in development of **JumpStarts USA GenAI** tools - AIDA, Copilot, etc.

Technical Transformation Lead / Sr Automation & AI Architect / DevOps Engineer

Capgemini UK Plc (Sogeti)

2019-Current

UKHSA - Public Health

2020-2024

- **Finalist, European Software Testing Awards 2022.**
- **Led multiple teams** across various sub-projects, developing a robust **automation framework** for the COVID-19 Test & Trace app across **Android, iOS, and web platforms** using **Java, Appium, RestAssured, Selenium, BDD, Cucumber, and Gherkin** for development.
- Established and managed a streamlined **CI/CD** pipeline using **AWS CodeBuild, CodePipeline, and GitHub Actions**, ensuring seamless integration and deployment.
- Integrated **Docker containerization** into the workflow using **YAML** and **Terraform** configurations, optimizing resource management. Handled environment configuration management using **Ansible**.
- Managed **VPCs**, created and managed **VMs (EC2 instances), S3, CloudWatch, ECR, ECS, EKS** proficiently for efficient application deployment and data storage.
- Introduced and Implemented **AI driven test automation**.
- Generated comprehensive **Test and Automation reports weekly, harnessing ML insights** via **ELK (OLK) dashboard** for continuous improvement.
- Applied a holistic approach, combining **GitOps, DevOps** and **Technical Architect** expertise to **drive innovation** and efficiency in software development and deployment processes.
- Provided **technical expertise** in **security and infrastructure assessments, evaluating vendor tools** based on **Enterprise Architecture Principles** for optimal solutions.
- Crafted meticulous **Automation Test Strategies and plans**, conducting thorough **feasibility analyses** to ensure efficacy.

Technical Transformation / Presentations & Pre-sales activities

Capgemini UK Plc (Sogeti)

2019 - Current

- Led **extremely challenging** and **critical accounts** across **diverse sectors** with varied teams. To name a few example of these accounts - UKHSA (UK Health Security Agency) and MoD (Ministry of Defence) where I managed to turn around the account into a profit generating account for Sogeti UK by establishing stake holder relationships, implementing new technologies, paving way for business development by successfully achieving contract extensions and increasing resource head count on the accounts.
- Oversaw **onsite and offshore teams** of on an average 30 - 35 professionals, spanning **Automation Engineers, DevOps Engineers, Developers, Testers, and Infrastructure managers**.
- Domain experience includes **Utility sector, Health sector, Aerospace and Defence systems, Telecom, Retail, Supply chain & Logistics, and Hospitality sectors**.
- Engaged in both internal and external client-based technical discussions at Sogeti/Capgemini for **implementing process, technical & project innovations and new technologies**.
- **Developed Business** and involved in **Pre-sales Activities including contributing to RFPs, Bid responses & preparations**, and client **presentations**, playing an important role in **business growth**.
- Demonstrated ability to **pilot accounts and drive business improvements** thus **increasing business revenue** at multiple levels and occasions.
- I have a **proven track record** and ability to **turn challenging accounts** into **profit generating accounts** for the firm.
- **Contributed significantly** to the recruitment process as a member of the **Technical Interview Panel**.
- **Leveraged expertise** in technical assessment and evaluation to identify and onboard top talent, ensuring a high calibre of staff for key roles.
- **Key trusted resource** to conduct **presentations, tech talks** and **brown bag sessions** for **Sogeti GenAI** offerings.
- Presented **Sogeti GenAI** capabilities at **UKHSA Annual Conference** and **NHSBT** conferences.

Software Test Automation Architect / Delivery Lead

Capgemini UK Plc (Sogeti)

Spirit Energy & Welsh Water - Utility

2020

- **Effectively managed and coordinated teams** of **automation and environment engineers**, overseeing **both onshore and offsite** operations across **two concurrent projects**. Demonstrated **exceptional leadership** and achieved a **100%** on-time **delivery** rate for both clients.
- **Architected a Test Automation framework** utilizing **Tricentis TOSCA** specifically tailored for **SAP SuccessFactors**. Established **automation environments** utilizing **virtual machines (VMs)**, **virtual desktop infrastructure (VDIs)**, and **TOSCA Servers** for executing overnight tests.
- Developed **Test Automation Strategy & Plans** and Conducted **thorough evaluations** of **automation tools** and implemented **coding standards for scripts, ensuring consistency and reliability**. Generated **detailed daily and weekly automation reports** for **technical and management stakeholders**, providing valuable insights into project progress.
- Served as the **primary technical point of contact & trusted partner**, effectively **managing relationships** with **stakeholders** and ensuring clear communication channels throughout the project lifecycle.

SAP Software Development Engineer Lead

Capgemini UK Plc (Sogeti)

2019-2020

British Aerospace and Defence Systems - Defence

- **Developed and crafted a SAP test automation framework** through **comprehensive analysis** of client systems. Introduced the framework's advantages by **delivering engaging presentations** and **Proof of Concepts (PoCs)**, resulting in successful **implementation of automation solutions** for the client.
- Successfully **Designed Test Automation framework** for **SAP migration from SAP r/3 to SAP S/4 HANA**.
- Orchestrated **CI pipeline** using **TOSCA Server / Jenkins** to align with **DevOps** principles.
- Engineered and executed **Automation Test Strategy and Plan**.
- Evaluated and implemented Automation test tools for a greenfield project.
- Demonstrated technical prowess by integrating client's **PLM, Workflow Management tool with Tricentis TOSCA** through PoC presentations.
- Conducted comprehensive **analysis** of **environments, infrastructure**, and UI functionality to devise **Test Automation** implementation **plan**.
- Presented client demonstrations highlighting the advantages of transitioning from manual to automated testing.
- Implemented **Tricentis TOSCA** for developing and scheduling automated test runs.

Software Automation Architect/ Delivery Lead

Cappgemini UK Plc (Contractor)

Ministry of Defence UK - Defence

2018-2019

- Effectively managed and led a multidisciplinary team consisting of automation testers, database administrators, and database testers for a critical government defence project. Spearheaded a comprehensive overhaul of testing tools and technologies through thorough analysis and evaluation of systems, applications, and tools.
- Played a pivotal role in assisting clients in selecting appropriate automation tools and technologies. Led the successful implementation of chosen tools and technologies, ensuring alignment with project requirements and objectives.
- Framework 1: Java, Selenium WebDriver, BDD (Cucumber, Gherkin), Page Object Model.
- Framework 2: JavaScript, MOCHA test framework, Grunt, WebDriverIO, CHAI assertion library for MoD projects.
- Maintained and executed automation scripts using F# on Canopy Test framework.
- Introduced Agile methodologies (SCRUM, KANBAN) to enhance testing efficiency and delivery speed.
- Managed Test environments on Linux OS, including deployment, snapshot management, and environment upkeep using Shell scripting.
- Configured and executed overnight tests using Jenkins and TeamCity for Continuous Integration and Continuous Deployment.
- Utilized Micro Focus ALM and UFT for automation script maintenance and execution.
- Contributed to Test strategy creation, planning, automation framework development, script execution, and report generation.
- Scheduled and automated tests using Micro Focus ALM and UFT 14.0.
- Developed Test Automation Strategy and Test Plans. Managed Statement of Work activities and led teams, achieving 100% revenue realization.
- Facilitated active engagement with stakeholders for commercial sign-off and proficiently managed billing processes.

Sr Software Development Engineer in Test

Cappgemini UK Plc

2016-2018

Royal Mail UK Plc - Logistics

2017-2018

- Enhanced existing automation framework with Java and Selenium for improved productivity and efficiency.
- Implemented REST API Automated Testing with SoapUI, enhancing testing capabilities.
- Utilized Groovy scripting language to integrate tests and manage test data effectively.
- Created mocks/stubs for web service responses using Java and Groovy scripting.
- Led Sprint Planning and Retrospective meetings, driving Agile methodologies adoption.
- Facilitated Automation Tool selection for web and API testing, ensuring optimal solutions.
- Developed integration between JMeter and Jenkins for one-click API Automation test execution, aligning with DevOps architecture.

Software Development Engineer in Test

Cappgemini UK Plc

Talk Talk - Telecommunications

2016-2017

- Pioneered Agile-driven Test Automation integration.
- Architected Selenium Automation framework leveraging Java, TestNG, and Page Object Model.
- Enhanced Test cycle time, coverage, and release quality.
- Conducted workshops on Selenium, Java, and TestNG for QA community empowerment.
- Engineered Java-based utilities for automated Test Data creation.
- Developed and managed web-based automation portal for seamless Bugzilla-JIRA integration.
- Contributed to tool selection for Java-based windows desktop applications.
- Led Automation Testing across two concurrent projects, balancing execution and project management duties.

Software Development Engineer in Test

DHL Ltd. (Formerly UK Mail) - Supply chain and Logistics

2014-2016

- Developed automated test scripts for web, mobile, and web-services testing across STLC and SDLC.
 - Extracted, designed, and developed test cases for both client-server and web applications from requirements specifications.
 - Automated web-services testing in SOA environment using SoapUI.
 - Conducted Load testing and stress testing using JMeter and SoapUI.
 - Implemented automation testing in Test Driven Development (TDD) environment.
 - Executed alpha and beta testing for UAT, functional testing, GUI testing, regression testing, and system testing.
 - Generated mock responses (service virtualization) using Service V, Service VPro, and SoapUI.
 - Utilized Groovy scripts to manipulate test data, trigger test suites, etc.
 - Conducted cross-browser testing (browser compatibility).
 - Managed test repository in Team Foundation Server (TFS) and Microsoft Test Management (MTM).
 - Utilized defect raising and tracking tools like Jira, SharePoint, TFS, and MTM.
 - Generated periodic test reports and provided timely updates to Test Manager, Project Manager, and Business Manager.
 - Worked with RDBMS and SQL scripts for database querying.
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Web Software Developer

Freelance - Various - Hospitality

2011-2014

- **Developed** and implemented responsive and user-friendly web interfaces using **HTML, CSS, and JavaScript**.
- Collaborated with design teams to **translate wireframes and mock-ups** into visually appealing and functional web pages.
- Ensured **cross-browser compatibility** and optimize web applications for various devices.
- Wrote **clean, efficient, and well-documented code** following industry best practices.
- Creating manual tests and execution of manual test scripts.
- Defect reporting and tracking using SharePoint.
- Used **media queries** for developing **responsive web** designs.
- Utilized **front end libraries** for created dynamic, clean and responsive websites
- Providing objective feedback to software development project teams Designing tests to mitigate risks.
- Created **master and nodes** for executing the tests.

Web Software Developer

Atos

2009-2010

- **Developed** and implemented responsive and user-friendly web interfaces using **HTML, CSS, and JavaScript**.
- Collaborated with design teams to translate wireframes and mock-ups into visually appealing and functional web pages.
- Ensured **cross-browser compatibility** and optimize web applications for various devices.
- Wrote clean, efficient, and well-documented code following industry best practices.
- Used **media queries** for developing **responsive web designs**.
- Utilized **front end libraries** for created dynamic, clean and responsive websites

EDUCATION & CERTIFICATIONS

- **Masters of Science** - Information Technology
- eMasters in **Artificial Intelligence and Machine Learning** - Indian Institute of Technology (IIT) Kanpur (2025 cohort)
- Professional Certification in **Machine Learning and Artificial Intelligence** – Imperial College, London
- **Bachelor of Science** - Information Technology
- TOGAF certified **Enterprise Architect** Foundation
- **AWS Certified Solution Architect** Associate - June 2024
- **AWS Certified DevOps Engineer** - Professional - July 2024
- **Microsoft Certified: DevOps Engineer** Expert - August 2024
- **Harvard Certified Connected Manager**
- University of Michigan – **Python** Certification
- Python for **Data Science** and **AI** – IBM
- Developing **Cloud apps** with **Node.js and React** – IBM
- Tricentis **TOSCA** Automation Specialist **Level 1&2**
- ISTQB Certified Foundation Tester
- ISTQB certified Agile Tester

AWARDS & RECOGNITIONS

- STAR Performer 2022 - Sogeti / Capgemini UK
 - GEMS Best Innovation to Support Project Delivery- Sogeti / Capgemini UK
 - STAR Performer 2021 - Sogeti / Capgemini UK
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