MITHULA VENUGOPAL SRINIVASAN

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Education

University of Warwick | Coventry, UK **2024 - 2028**
- BSc Computer Science with Placement Year at **Haleon**; Grade - 2:1

FAIPS DPS | Ahmadi, Kuwait **2011 - 2024**
- CBSE Grade 12 – 95%

Technical Skills

- Java, Python, HTML, CSS, JavaScript, React
- Flask, SQL, PostgreSQL, FastAPI, Power BI, Excel
- Git, OOP, DSA, AWS Principles, Render
- Machine Learning, NumPy, Pandas, AI

Projects

KICA Management System & Website | Python, FastAPI, Render, PostgreSQL, React, Alembic, Git **2026**
- Architected and deployed a live production full-stack system for KICA (kicachess.com) with 16 REST API routers, actively used by club executives to manage 60+ players' attendance, fees, expenses and registrations; version-controlled with Git; deployed on Render behind Cloudflare DNS, with automated Alembic pre-deploy migrations
- Enforced data integrity under concurrent writes using exclusive table locks; built attendance-based fee calculation, an immutable audit log and 21 schema and data migrations, verified by 200 pytest integration tests
- Hardened authentication with role-based access, Argon2 password hashing, SHA-256 hashed session tokens in HttpOnly cookies, timing-attack-resistant login, database-backed IP and email rate limiting; built with Claude Code

Airport Simulation System | Java, Spring Boot, PostgreSQL, REST APIs, Agile Methodology **2026**
- Collaborated in an Agile software engineering team to build an airport simulation system, developing across 5 sprints using Jira, GitHub feature branches, peer-reviewed pull requests and CI/CD testing
- Developed core backend components within the simulation, database and API layers, to model runway closures, emergency landings, and fuel-critical diversions, with PostgreSQL persistence for simulation results & event logs

Penetration Testing, OSINT, Malware Analysis Project | SQL Injection, Kali Linux, sqlmap, Python **2025**
- Executed an end-to-end penetration test against a vulnerable Linux server using Nmap, manual SQL injection, SSH access and privilege escalation; enumerated 3 databases and cracked an MD5 hash using John the Ripper
- Performed OSINT investigation on 8+ digital artefacts by metadata analysis, geolocation, reverse-image research
- Simulated 3 MITRE ATT&CK techniques with Atomic Red Team, testing credential access & PowerShell execution

Gig & Ticketing Database System | PostgreSQL, SQL, Java **2025**
- Designed a PostgreSQL based event ticketing system using Java-SQL workflows with complex joins, multi-stage CTEs, views and triggers across interconnected relational data

FlowCheck - Stuttering Detection Web App | Python, FastAPI, Machine Learning, Whisper AI **2025**
- Built an independent AI-based speech fluency analysis tool to detect stuttering, provide fluency scores, suggest AI-powered synonyms for stuttered words; developed FastAPI backend with Streamlit frontend
- Used Whisper AI for transcription, Librosa for acoustic feature extraction, and trained a Random Forest classifier on 1,383 audio clips (10 hours) from Apple's SEP-28k stuttering dataset, achieving 83% accuracy & 0.90 F1 score

Robot Maze Navigation | Java, DFS, Backtracking, Tremaux's Algorithm, Simple AI **2024**
- Built intelligent robots to solve randomised & loopy mazes with advanced pathfinding logic (Tremaux algorithm), complex search and backtracking algorithms, performance tracking, and tested on Linux/Unix environment

Experience

Quality Governance & Data Placement Intern | Haleon – Placement Year, London **2026 - 2027**
- Build complex dashboards from 100K+ records, cleaning and transforming raw data in Excel into a reusable reporting solution for trend analysis and operational overview
- Conduct tangible root-cause and trend analysis on deviation data, identifying recurrent implicit factors and translate findings into process-improvement recommendations to senior stakeholders
- Analyse quality data across multiple supply-chain stages within a global consumer-health company

Student Ambassador | Department of Computer Science, University of Warwick **2025**
- Coordinated and organised Open Days; communicated and engaged with prospective students & offer holders

Software QA Intern | Xcite by Alghanim Electronics, Kuwait **2025**
- Conducted exploratory and bug testing on the Xcite & Safat Home apps, identified major bugs and documented them for team review; delivered a formal presentation of my findings to the entire QA team
- Developed test cases for a new application feature focusing on validating POS entries and SAP records

Publications Director | TEDxWarwick, Coeventry **2025 - 2026**

Women's Chess Officer | Warwick Chess Society, Coventry **2025 - 2026**
- Coordinated Warwick's biggest women's tournament, managed logistics, marketing, and external outreach

Tech Research Intern | Integrin Enterprise Solutions, Remote **2025**
- Researched CMS platforms to replace Joomla on security and scalability; recommended WordPress as solution