

ARUNDHATI SHUKLA

Student at SRM University of Science and Technology, Kattankulathur, Chennai

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About Me!

I am a passionate software developer with a strong foundation in programming, problem-solving, and software development best practices. My curiosity drives me to apply what I learn through hands-on projects, internships, and research. I have a keen interest in technology-driven solutions, automation, and scalable applications, focusing on efficiency, optimization, and maintainability. I enjoy architecting robust systems, implementing design patterns, and leveraging automation frameworks to streamline processes. I thrive in collaborative environments, working with cross-functional teams to develop high-quality solutions. Staying updated with emerging technologies, I continuously enhance my skill set to build impactful, high-performance software solutions.

Experience

BUSINESS TECHNOLOGY SOLUTIONS ASSOCIATE | ZS ASSOCIATES, PUNE |

DEC'24 – PRESENT

- Part of the NNI NBA Operations team, leveraging data-driven insights and analytical frameworks to optimize business processes.
- Develop and implement scalable, technology-driven applications to improve operational efficiency and business growth.
- Collaborate with cross-functional teams to solve complex problems and enhance decision-making capabilities.

FULL STACK ENGINEER | FIDELITY INVESTMENTS, BANGALORE |

JUNE'24 – AUG'24

- Developed an automated validation system using Cucumber, JDK, and Eclipse.
- Implemented object-oriented programming principles and software automation to enhance validation accuracy and efficiency.
- Worked closely with cross-functional teams to refine and optimize the automation framework.

RESEARCH INTERN | INDIAN INSTITUTE OF TECHNOLOGY, HYDERABAD |

MAY'24 – JUNE'24

- Researched and developed an efficient resource allocation algorithm for Vehicle-to-Vehicle (V2V) communication.
- Focused on optimizing traffic management to prioritize emergency vehicles like ambulances, improving response time and road safety.

IT INTERN | OIL AND NATURAL GAS FOUNDATION, DEHRADUN |

MAY'23 – JUL'23

- Developed a streamlined web platform for EPINET account requests, incorporating automated workflows, real-time tracking, and robust security.
- Designed an intuitive user interface with scalability considerations, improving account management and enhancing the user experience.
- Gained hands-on experience in web development, project management, and system security, contributing to a more efficient digital infrastructure.

Education

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY | 2021 - 2025

COMPUTER SCIENCE ENGINEERING WITH SPECIALIZATION IN

CYBER SECURITY,

BATCH OF 2025

CGPA UPTO 7TH SEM: 9.8

LORETO CONVENT SCIENCE STREAM | 2008 – 2021

BATCH OF 2021

GRADE 10: 95% (2019)

GRADE 12: 93% (2021)

Skills & Abilities

Programming & Development

- C, C#, C++, Python, Java, JavaScript
- Object-Oriented Programming (OOP), Design Patterns
- Data Structures and Algorithms
- Full Stack Development (ReactJS, NodeJS, PHP, SQL, HTML, CSS)

Software Development & Security

- Operating Systems, Information & Network Security
- Process Automation & Improvement
- Agile Methodologies (Scrum, Kanban)
- Test-Driven Development (TDD)
- Machine Learning

DevOps & Tools

- Git, GitHub, GitLab, Azure DevOps
- Docker, CI/CD Pipelines, Jenkins

Databases & APIs

- SQL, MySQL, MongoDB, Firebase
- RESTful APIs, Web API, Cloud Integration

Soft Skills & Management

- Problem-Solving, Critical Thinking & Decision Making
- Project Management, Organization & Collaboration
- Adaptability, Initiative & Continuous Learning
- Data Visualization, Reporting & Communication

Certifications and Badges

- **Zero Trust Certified Associate (ZTCA)** - Certified in Zero Trust principles and methodologies.
- Awarded the certificate for completing the online course on **AWS Academy Graduate - Cloud Security Foundation**.
- Awarded the certificate for completing the online course on **AWS Academy Graduate - Machine Learning Foundation from Amazon Web Services**.
- Awarded the certificate for achieving a **Fortinet certified associate in cybersecurity** by Fortinet.
- Awarded the certificate for completing the online course on **Cisco Networking Essential from CISCO**.
- Awarded the certificate for completing the online course on **Networking Devices and initial Configuration** from CISCO.
- Awarded the certificate for completing the exam for **Junior Cybersecurity Analyst from CISCO**.
- Awarded the certificate for completing the online course on **Introduction to Cybersecurity Tools & Cyber Attacks from IBM**.

Projects

Project Name	Technology used	Description
ThermalGait - Cybersecurity mar'24 - apr'24	Machine Learning	In my projects, I've developed 'ThermalGait,' a security solution for crowded public spaces. It integrates gait analysis, human activity analysis, and thermal screening to detect threats accurately. By analyzing walking patterns and identifying anxiety-related movements, it reduces suspects. Thermal screening verifies concealed weapons, enhancing accuracy. Prioritizing privacy and consent, ThermalGait respects ethical considerations while advancing security efforts, significantly contributing to public safety in crowded environments.
The Metro App June'24	Full Stack Development DSA, NodeJs, Reactjs, SQL	The objective of this project is to determine the shortest path between the source and destination metro stations using algorithms like Dijkstra, breadth-first search, and depth-first search. Based on the total distance between the two stations, the fare is calculated and the metro route along with the total fare is displayed.
Wireless Video Transmission june'23 - aug'23	python, cryptography, openCV	The objective was to create a secure wireless system for transmitting extended-range video from thermal cameras. This involved digitizing analog data, implementing strong encryption for security, establishing secure wireless transmission, and enabling decryption at the receiver's end. The outcome is a real-time surveillance solution with enhanced data security.
Keylogger: Capturing keystrokes may'23 - jun'23	CySec - python libraries	The objective was to create a robust cybersecurity monitoring tool with features like keyboard tracking, screenshot capture, audio recording, clipboard monitoring, and system data gathering. Emphasizing encryption, ethical usage, and a user-friendly tkinter interface, the outcome is a surveillance and security tool that upholds privacy and ethical standards.
Multilevel Application Approval System feb'23 - apr'23	Fullstack Development - PHP, SQL, HTML, CSS	The project scope involves creating a user-friendly web platform for EPINET user account creation requests. This encompasses automated approval workflows, real-time tracking, data security, intuitive user interface design, scalability considerations, user training, testing, implementation planning, and ongoing support. The aim is to streamline account management, enhance security, and ensure efficient user experience.
WasteWatch apr'24 - may'24	Fullstack Development NodeJs, Reactjs, SQL	The Waste Management System project introduces comprehensive features for efficient waste handling. It enables tracking of household and municipal waste, aiding decision-making with insightful data. Efficient disposal methods ensure sustainability, while a robust database centralizes waste management information. A resource exchange platform and grievance system promote recycling and community engagement.

Research paper

- **Severity of Postural Imbalance In Individuals with Autism Spectrum Disorder** The study applies data science to analyze CoM trajectories in ASD, proposing a marker-free approach to improve balance assessment and interventions.
- **ThermalGait: Threat Detection Conducted research on "ThermalGait: Fusion of Thermal Signatures and Gait Analysis for Intelligent Threat Detection in Crowded Environments."** using Machine Learning with SRM.
- Conducting research on **"Algorithm for secured video transmission over wifi using python"** with IRDE, DRDO

Co-Curricular Activities

- **JP MORGAN: CODE FOR GOOD:** I attended the JPMorgan Code for Good Hackathon, collaborating with a team to develop innovative solutions for challenges faced by non-profit organizations.
- **HACKTHEBOX:** I attended the HackTheBox event, where my team and I solved challenging problems within a time limit, testing our skills in cybersecurity and problem-solving under pressure