



VARUN SAHNI

BITS Pilani, B.E. Computer Science, 2020 - 2024

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EDUCATION

COURSE	SPECIALIZATION	UNIVERSITY	SCORE	YEAR
B.E.	Computer Science	Birla Institute of Technology and Science Pilani (BITS-Pilani Main Campus)	8.11	2020-24
CLASS XII	Science (PCM+CS)	Manav Sthali School, New Delhi / Centra Board of Secondary Education (CBSE)	91.6 %	2020
Relevant Coursework	Data Structure and Algorithms, Design and Analysis of Algorithms, Computer Networks, Operating Systems, Object Oriented Programming, Database Management System, Computer Architecture, Discrete Structure in Computer Science, Computer Graphics, Compiler Construction, Blockchain			
Languages	C, C++, Java, Python, C#, Dart, Bash, JavaScript, SQL, OCaml			
Frameworks	Flutter, Unity, Firebase, Azure DevOps, React, Git, Bitbucket, Langchain, Jenkins, QXDM, Perforce, Chroma, Mixed Reality Toolkit 3, AR Core			

EXPERIENCE

Associate Software Engineer, Qualcomm	July 2024 - Present
<ul style="list-style-type: none">Created Code Review Assistant extension for Code Collaborator using RAG & multilevel query to analyze code changes & provide actionable feedback.Gained deep expertise in NTN and LTE architecture, resolving critical hotline issues within 24 hours, prioritizing same day resolution for customer issues.Developed an AI-driven Hotline Resolution system utilizing NLP (Natural Language processing) tools like NLTK and Spacy for preprocessing, Semantic Similarity Example Selector for few-shot prompting, Chroma as Vector Database, and Sentence-Bert (SBERT) for response evaluation.	
Software Development Intern, AMD (Advanced Micro Devices, Inc)	Jan 2024 - Jun 2024
<ul style="list-style-type: none">Crafted multi-threaded script utilizing LSF to analyze 250GB+ bus tracing data, cutting runtime from a week to 45 mins, addressing volume & IO overhead.Utilized JIRA Rest API for automating CRUD operations, summarizing 1000+ issues, & establishing hierarchical linkage to optimize project management.Conducted competitive analysis of benchmarks (Sysbench and SPEC 2017) on several server machines, providing insights into system performance.Created new benchmarks & developed automation scripts to streamline benchmarking processes, elevating the efficiency of performance analysis pipeline.	
Software Development Intern, Standard Chartered GBS Pvt Ltd	May 2023 - Jul 2023
<ul style="list-style-type: none">Improved code reliability for SC Pay by implementing 100+ test cases using JUnit and Mockito, achieving outstanding 98.61% test coverage.Managed the setup and deployment of over 10 repositories using Azure DevOps, ensuring continuous integration and rapid software releases.Facilitated efficient collaboration with Bitbucket for version control & code reviews, streamlining development processes & improving team productivity.	
Software Development Intern, Invoxel Technologies	Jun 2022 - Aug 2022
<ul style="list-style-type: none">Created AR application for an art gallery, leveraging image recognition to scan paintings, retrieve relevant information, showcasing it on a virtual canvas.Implemented robust AR Object positioning by using private Wayspot Anchors, ensuring stable alignment of virtual elements with real-world objects.Developed a multi-touch application using "TouchScript" for a museum, enabling concurrent usage by multiple users on touch-enabled devices.	

AWARDS

DAAD Scholarship Awardee German Academic Exchange Service	Sep 2022
<ul style="list-style-type: none">Awarded prestigious DAAD scholarship to conduct research on Mixed reality-based application as a guest researcher at Tu Braunschweig Germany.	
CCIB SCPAY 2023 Award Standard Chartered Bank	July 2023
<ul style="list-style-type: none">Awarded for excellence in leading the migration of continuous integration systems from Jenkins to Azure DevOps, ensuring scalability, reliability, and reduced deployment times. This transition improved system availability for real-time financial applications.	
JumpStart Publicis Sapient	July 2023
<ul style="list-style-type: none">Achieved top performance in the Publicis Sapient Jumpstart Hackathon, earning exclusive access to the prestigious Publicis Sapient Jumpstart Program.	
JEE Advanced Indian Institutes of Technology (IIT)	Sep 2020
<ul style="list-style-type: none">Obtained JEE Advanced rank 2358 out of 1,50,000 candidates, showcasing outstanding proficiency in math, physics, and chemistry.	

SELECTED PROJECTS

Indo-German Sustainability Challenge -Project at TU Braunschweig University Germany - Mixed Reality Toolkit 3, C# Language	Sep 2022 - Jan 2023
<ul style="list-style-type: none">Developed user-friendly Mixed Reality application for visualizing complex Life Cycle Assessment LCA data, facilitating decision-making processes.Demonstrated the application's features, enabling intuitive navigation, scenario selection & CO2 emissions visualization over the product's lifetime.Presented the AR application on the "HoloLens" to a scientific jury, receiving accolades for its innovative approach & potential impact on LCA analysis.Collaborated seamlessly with international teams, fostering effective cross-cultural communication and teamwork at TU Braunschweig and BITS Pilani.	
Digital Map Twin -Project on Geospatial Mapping and Location Services - MapMyIndia Company - C# Language	Aug 2022 - Jan 2023
<ul style="list-style-type: none">Created MapMyIndia SDK's Navigate to and from feature with intuitive zooming animations, facilitating effortless travel between map locations.Built a versatile Map Layer Inspector Panel, automating marker and model management on the map, resulting insignificantly reduced development time.Implemented smooth zoomable and rotation functionality, ensuring a fluid and distortion-free experience, resulting in enhanced map interactions.	
Compiler Construction - Academic Project - C Language	Feb 2023 - Apr 2023
<ul style="list-style-type: none">Implemented a highly efficient compiler from scratch, covering lexical analysis, syntax analysis, semantic analysis, and code generation stages.Designed an optimized lexical analyzer with DFA-based tokenization and twin buffer implementation, enhancing parsing efficiency and memory utilization.Developed LL (1) grammar with automated first and follow sets, enabling precise parse tree generation and robust error recovery capabilities.Constructed Abstract Syntax Tree (AST) during syntax analysis, reducing memory requirements by 70% while capturing essential semantic structure.	
Live TrainStatus - Academic Project - Database Management System - SQL, Dart Language	Mar 2022 - May 2022
<ul style="list-style-type: none">Developed a Train Status Tracking App using Flutter to monitor train schedule, routes, ETA, ETD and live status of any train.Streamlined Live Train tracking with a well-structured ER model and relational schema, enabling efficient data retrieval and enhanced user experience.	

LEADERSHIP SKILLS AT BITS PILANI

First President - Kalipatnapu AR/VR Lab BITS Pilani - https://www.linkedin.com/company/kalipatnapu-arvr-lab/	May 2023 - Jun 2024
<ul style="list-style-type: none">Strengthening Industry Partnerships to identify opportunities and develop innovative AR/VR solutions, immersive experiences & interactive simulations.Building Team -Led a team of 40 students to work on different AR/VR projects & hosted VR experience zone during Oasis generating 40,000+ in profits	
Blockchain Dept Coordinator - Coding Club	Jul 2022 - May 2023
<ul style="list-style-type: none">Pioneered the establishment of the Blockchain Department, outlined objectives, executed initial recruitments and conducted ICP Hackathon.	