Akash Maji

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EDUCATION

INDIAN INSTITUTE OF SCIENCE
M.Tech in CSE | 2024-26
Cum. GPA: 8.20 / 10.0

RGPV UNIVERSITY, BHOPAL
B.Tech in CSE | 2017-21
Cum. GPA: 9.39 / 10.0
Distinction (Hons.) with Silver Medal

KRISHNA PUBLIC SCHOOL
HSC | PCM | 2015-17
Class XII Boards: 95.4 / 100.0

DAFFODIL PUBLIC SCHOOL
Matriculation | 2005-15
Class X Boards: 94.5 / 100.0

COURSEWORK

UNDERGRADUATE
Operating Systems | Databases | Computer Networks | Computer Organization | Digital Logic Design | Discrete Maths | Compiler Design | Theory of Computation | Linux

GRADUATE
Probability and Statistics | Database Systems | Computer Architecture | Machine Learning | Scalable Data Science | Cryptography | Distributed Systems | Graphics And Visualization | Computer Systems Security

ACHIEVEMENTS

2019	RGPV Chancellor Award	
2021	RGPV Silver Medal	
2024	GATE CS	AIR 026
2023	GATE CS	AIR 608
2024	GATE DA	AIR 648

SKILLS

PROGRAMMING
Industry experience with:
Java • JavaScript • Spring Boot •SQL Eclipse/STS • OracleDB • JIRA •Git
Proficient with:
Java • C/C++ • Python • Linux• CUDA • OpenMP/MPI •Spark • OpenGL

SOFT SKILLS
Native Proficiency:
English • Hindi • Bengali

EXPERIENCE

TATA CONSULTANCY SERVICES | Systems Engineer
Indore | Aug 2021 – May 2024 | Full Time
Worked as a System Engineer in TCS (Digital) as full-stack developer under a real-estate project with Verizon. Received 3 Star of Month awards for managing the team and contributing to projects, development and production support.

CERIFICATIONS

ORACLE CERTIFIED ASSOCIATE JAVA PROGRAMMER | Cert
1Z0-808| Feb 2019 | Bhopal, IN
Certified as a Java Programmer from Oracle through online proctored exam

MICROSOFT CERTIFIED AZURE FUNDAMENTALS | Cert
AZ-900 | July 2020 | Online
Recognized as an entry-level cloud programmer from Microsoft.

PROJECTS

VM-DIFFING-TOOL | GitHub · Docs · Releases
Developed a powerful web/CLI tool for analyzing and comparing VM disk images. Supports image browsing, side-by-side file, directory and block comparisons, image conversion, VM launch utilities, and PDF reports.
Tools Used
Python (Flask) • C++ (pybind11) • libguestfs • Docker • SQLite

MEDICAL VOLUME RENDERER | GitHub · Releases
Implemented an OpenGL-based 3D volume renderer with a PyQt6. Capable of loading medical/scientific volumes (NIfTI, DICOM, VTK) and performing GPU-accelerated volume rendering, slice visualization, isosurface rendering, and interactive transfer function editing.
Tools Used
C++ • OpenGL • Python • PyQt6 • pybind11 • VTK • DCM• Docker • NIfTI

MARKET MICROSERVICE | PODS Course Project | GitHub
Implemented 3 microservices (account-service, marketplace-service, wallet-service) using dockerized akka-cluster where concurrent RESTful requests are made and served using CLI, ensuring consistency.
Tools Used
Java21 • IntelliJ • Git • SpringBoot3• Akka library • Docker • Kubernetes

DUCKDB | DBMS Course Project | GitHub
Implemented two operators, 'Join' and 'GroupJoin' in the open-source DuckDB codebase, with 'Join' being simple nested loop join, and 'GroupJoin' being used when we have a any 'Join' followed by 'Group By'.
Tools Used
C++ • CMake • Git • SQL • VSCode• QtCreator

CHAMPSIM-IISC | HPCA Course Project | GitHub
An adapted version of ChampSim (open-source simulator) with various kinds of branch predictors implemented for calculating performance metrics like prediction accuracy, MPKI, IPC etc. from program traces.
Tools Used
C|C++ • Shell Scripting • Git • VSCode • Python3