

# Akash Maji

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## EDUCATION

### INDIAN INSTITUTE OF SCIENCE

M.TECH IN CSE | 2024-26

Cum. GPA: 7.90 / 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

### 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 with Verizon. Received 3 Star of Month awards for managing the team and contributing to projects including 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

### MINI TRANSFORMER MODEL | SYSML PROJECT | GitHub

Built from scratch using Python — without frameworks. Implements components like positional encoding, self-attention, multi-head attention, normalization, and output prediction following the original paper.

Tools Used

Python3 • NumPy • Git • VSCode • Shell Scripting

### CNN MEMORY PROFILING | ML PROJECT | GitHub | Report

Profiled and optimized CNN inference on RTX 3060, GTX 1050, and Tesla T4 GPUs using FP16 arithmetic, mixed-precision (AMP+AMC), and tiled inference to reduce memory usage and improve throughput across ResNet-20/32/44/56 models trained on CIFAR-10 and Mini-ImageNet.

Tools Used

Python3 • PyTorch • CUDA • GPU • Git • VSCode

### 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