

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.

CERTIFICATIONS

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