

Abhishek Agarwal

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github.com/drpeabody | [Academic Reports](#)

Work Experience

Senior Applications Developer, Oracle India

August 2023 - Present

- Developed multiple new REST services integrating with existing data model to provide new requirements
- Currently working on enhancing even more REST services to feature enable them

Applications Developer, Oracle India

July 2021 - July 2023

- Developed and optimized a fully horizontally scalable, distributed large data pipeline using Apache Spark
It imports 1 million inter-dependent and tree structured objects per hour at 8 threads
Setup coding standards and automated testing along with automated continuous integration
- Developed a multi-threaded, fault-tolerant PL/SQL program to import historical versions of objects
It supports importing 10,000 tree objects per hour for multi-team dependent features

Technical Team Lead, Placement Cell, IIT Hyderabad

July 2020 - December 2020

- Lead a team of three student developers to make an entirely new placement portal for our college
- Delivered multiple features like standardized resumes, dashboards for companies and students
- My entire batch of 2021 used the portal we developed for placements in December 2020 - March 2021

Full Stack Developer and Graphics Engineer, [StoryXpress.co](#)

November 2018 – April 2021

- Developed a small, failure resistant, horizontally scalable Kubernetes cluster
Featuring multi-instance RedisDB, GoLang servers and multi-instance RabbitMQ deployments
- Designed and maintained a GoLang server on cloud for automated video conversion and effects
Integrated RabbitMQ and Prometheus APIs, processing 500+ videos from 300+ users daily
- Optimized and maintained a python server which generates videos using OpenGL using templates
Sped up the renderer by 6x by using a single linux pipe for each video instead of a separate file for each frame

Education

Indian Institute of Technology, Hyderabad,

July 2017 - April 2021

BTech, Major in Engineering Physics with additional Minor in CSE

- **CGPA:** 8.57/10.0 in Physics Major and 7.78/10.0 in Computer Science Minor
- **Coursework:** Data Structures and Algorithms, Theory of Computation and Complexity, Operating Systems 1 and 2, Principles Programming Languages 1 and 2, Quantum Mechanics, Statistical Mechanics, Classical Thermodynamics, Quantum Field Theory

Enthusiast & Hobby Projects

Research in High Energy Particle Physics

[Link to Project Report](#)

- Wrote C++ to generate particle collision data using Standard Model of Physics
- Analyzed the characteristics of a specific particle collision in the simulated data
- Tools Used: C++, Pythia (High Energy Physics Simulation Library)

Intermediate experience in GPU programming

[Link to Project Repository](#)

- Wrote custom multi-threaded 3-D game engine using low level OpenGL libraries
- Tools Used: Java, C++, GL Shader Language