

# ANANYA DAS

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## EDUCATION

**The University Of California, Santa Cruz | Teaching Asst. (Functional Prog., Database Systems)** SC, California  
Masters in Computer Science (GPA - 4.0) Sept 2021 - Present  
**Coursework:** Distributed Systems, Analysis of Algorithms, Programming Languages, Adv. Database Systems, High-Performance Computing, Information Retrieval, Machine Learning, Advanced Operating Systems, Artificial Intelligence

**West Bengal University of Technology, West Bengal** West Bengal, India  
Bachelor of Technology in Computer Science (GPA - 8.46/10)(Amongst top 5 in the department) Aug 2011 - June 2015  
**Coursework:** Design and Analysis of Algorithms, Database Systems, Object-Oriented Programming, Operating Systems

## RESEARCH EXPERIENCE

**Exploring record and replay at the LLVM level - Research Project of CSE 231 (Adv. Operating Systems)**  
Identify the non-deterministic LLVM instructions. Also create a compiler swap out of that instruction with a function. And record the execution using GDB.

**Benchmarking of applications in the tidalscale software-defined server - MS Research Project**  
Creation of a software defined server and performed experiments to see the applications that scaled poorly in 1 core, 2 cores and 4 cores.

## RECENT PROJECTS

**Comparative analysis and implementation of an LR(0) parser** UCSC, Jan 2022 - Mar 2022  
Implemented the LR(0) algorithm in three different languages Java, Python and Scala. Compared the runtime for three different grammars and sentences amongst which Java took the least time and Python the highest

**Genomic compression** UCSC, Apr 2022 - May 2022  
Comparison of the reference free and reference based methods of genomic compression in nanopore sequencing

**Survey of caching paradigms in search engines** UCSC, Apr 2022 - May 2022  
Implement and compare caching algorithms and techniques such as LRU, LFU, MRU, FIFO over my search algorithm that runs on a single computer. Compared the performance of bitfunnel indexing algorithm with B+ tree indexing

## WORK EXPERIENCE

**Inovalon Inc.** Remote  
Software Engineer Intern Jun 2022- Aug 2022

- Worked on a web-based pharmacy application using Node.js, JavaScript and PostgreSQL, and unit testing using Jest
- Redesigned AWS database and built REST APIs to reduce response time by 40%

**Shell India** Bangalore, India  
Software Engineer Aug 2019 - Aug 2021

- Developed automation tests for web and mobile-based applications in Salesforce for Regression Testing
- Created automation framework for Salesforce based application and automated end-to-end functionality and regression test cases for DocuSign contract creation optimising more than 80 percent of test cases

**INFOSYS** Bhubaneswar, India  
Test Analyst Dec 2015 - Jul 2021

- Developed automation test scripts for web and mobile-based US Healthcare Insurance Product
- Reduced the change deployment time from about an hour to 3-4 minutes through dynamic reloading of modified spring components. This also eliminated the need for a complete application server restart after any code modifications

**Tata Consultancy Services Ltd** Kolkata, India  
Software Development Intern May 2014 - Jul 2014

- Developed E2E CRUD APIs and refactored legacy code using appropriate design patterns
- Designed database schema and low-level system design for one microservice
- Developed responsive UIs using Vanilla Javascript, Bootstrap HTML

## SKILLS

**Languages/Frameworks:** Java, Python, C++, C, Numpy, Pandas  
**Technologies:** Selenium Webdriver, Cucumber, Maven, TestNG, RestAPI Automation  
**Databases :** MySQL, SQLServer, Oracle, PostgreSQL, MongoDB  
**Dev-Ops:** Docker, Jenkins  
**Tools:** Git, Swagger, Elastic