
# ADITYA ANIL SINGH

Course :**B.E. (Hons.)**, Computer Science and **M.Sc. (Hons.)**, Economics, 2024
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## ACADEMIC DETAILS

| COURSE | SPECIALIZATION | INSTITUTE/COLLEGE | BOARD/UNIVERSITY | SCORE | YEAR |
|---|---|---|---|---|---|
| CLASS XII | SCIENCE | RIMS International | Maharashtra State Board of Secondary and Higher Secondary Education (MSBSHSE) | 81.85 % | 2018 |
| CLASS X | | Bombay Cambridge Gurukul | IGCSE | 87.4 % | 2015 |

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| **Subjects / Electives** | Financial Management, Object Oriented Programming, DBMS, DSA, Business Analytics and Valuation, Discrete Mathematics, Computer Science, Operating Systems, Theory of Computation, Microprocessing and Interface, Security and Portfolio Management, Logic in Computer Science |
| **Technical Proficiency** | C Programming, C++ Language, DSA, Java, Python, DBMS, AWS, Spring Boot, Object-Oriented Programming (OOP) |

## SUMMER INTERNSHIP / WORK EXPERIENCE

**Software Engineer Intern, Amazon** **Jul 2023 - Dec 2023**

Project 1: Deprecation of a service (Away Team Work)
As a Software Engineer Intern, I contributed to a project involving the transition from a legacy database-dependent service to a modernized architecture. I enhance data flow efficiency by directly publishing to Amazon SNS, reducing latency, and improving service performance in clients' packages. Leveraging my technical skills in Java and Spring Boot, I execute this migration while collaborating effectively across teams. My role underscores adaptability, problem-solving, and a commitment to optimizing systems through innovative solutions.
As part of the project, I worked on design documents to present the clients with multiple approaches and to finalize the approach that was cost-effective and efficient.

**Summer Intern, CELEBAL Technologies** **May 2021 - Jul 2021**

The project title was Predict Bidding. It was a Machine Learning based project, where the price of a product was to be predicted based on product specifications and reviews. I used several models such as Linear Regression, MLP Regressor, and LightGBM Regressor along with hyper-parameter tuning to increase accuracy.

## PROJECTS

**Open Source Project - Compiler Construction** **Feb 2023 - Present**

I successfully completed a project within the LLVM open-source community, specifically addressing a diagnosed undefined behavior in the Clang diagnostics component. The issue revolved around lvalue conversion cases where an lvalue had an incomplete type and lacked an array type. To rectify this problem, I developed and implemented a fix in the LLVM codebase, ensuring accurate diagnosis and avoiding undefined behavior.
Throughout the project, I took the following steps: I conducted a thorough analysis of the LLVM codebase to identify the root cause of the diagnosed undefined behavior related to lvalue conversion. Based on my findings, I devised an effective solution and integrated it into the LLVM codebase, making the necessary modifications. To ensure the reliability and correctness of the implemented fix, I meticulously designed and executed a suite of regression tests, covering various scenarios and edge cases. These tests were crucial in verifying that the fix produced the expected behavior and did not introduce any new issues.

**Predict Bidding - ML** **May 2021 - Jul 2021**

The project titled "Predict Bidding" was a ML based project on python. The objective was to build a model which would predict the prices of product based on product specification and reviews. This would then be used by companies to bid for a product efficiently, so they don't over or underbid. The model used NLP with neural networks and GBMs to get a better accuracy.

## EXTRA CURRICULAR ACTIVITIES

**Abhigyaan Teaching and Mentor**

## COMPETITIONS

**Codechef**
**RATING** - 1900
**Codeforces**
**RATING** - 1435