

Utsav Murarka

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EDUCATION

BITS PILANI, K. K. BIRLA GOA CAMPUS

B.E. IN COMPUTER SCIENCE

Cumulative GPA: 8.90 / 10

Aug 2017 - June 2022

BITS PILANI, K. K. BIRLA GOA CAMPUS

M.Sc. IN PHYSICS

(INTEGRATED DUAL-DEGREE)

Master's Thesis:

"Time Series Modelling of the Indian Stock Market: A Machine Learning approach" under supervision of **Dr. Chandradew Sharma**, Associate

Professor, Dept. of Physics
Cumulative GPA: 8.90 / 10

Aug 2017 - June 2022 | Goa, India

LINKS

Github:// [utsavmurarka](#)

LinkedIn:// [utsavmurarka](#)

COURSEWORK

CS Major

Design and Analysis of Algorithms
Artificial Intelligence

Neural Networks and Fuzzy Logic

Foundations of Data Science

Object Oriented Programming

Database Systems

Operating Systems

Physics Major

Computational Physics

Quantum Information and
Computation

Theoretical Neuroscience

Quantum Mechanics I & II

SKILLS

PROGRAMMING

Languages:

JavaScript • Python • Java • C++
MySQL • GraphQL • SASS/SCSS •
HTML/CSS

Testing:

Selenium • JUnit • JEST • Sinon

Tools:

Git • VSCode • Eclipse IDE

EXPERIENCE

SERVICENOW | ASSOCIATE SOFTWARE ENGINEER

July 2022 - Present | Hyderabad, TS

AMAZON | SOFTWARE DEV ENGINEER INTERN

Jan 2022 - June 2022 | Bengaluru, KA

- Worked as a part of Amazon Payment Products, on Amazon's internal **GraphQL** Wrapper.
- Productionized a proof-of-concept for the **selection safelisting** feature in Amazon GraphQL.
- Came up with a low-level design for the module, and implemented it in **Java**.
- Implemented unit tests using **JUnit** and **Mockito**, and performed integration and beta testing.

SERVICENOW | SOFTWARE DEVELOPMENT INTERN

May 2021 - July 2021 | Hyderabad, TS

- Designed and implemented a feature to manage hierarchical entity-relations as a part of the Risk Engineering team.
- Created a web component using the Now Experience UI Framework and **D3.js Library** for the frontend.
- Implemented a drag-and-drop based graphical interface for viewing and editing the hierarchical relations in the database.
- Created **REST APIs** on the ServiceNow platform to connect the database to the frontend.

INFIBEAM AVENUES LTD. | SUMMER INTERN

May 2019 - July 2019 | Gandhinagar, GJ

- Designed and developed an AI chatbot application for taking interviews, using **Django** and **Dialogflow API**.
- Designed a schema for a database to store interview questions and user responses. Implemented it in **PostgreSQL**.
- Created an admin page in Django to manage the interview questions and view user responses.

ACADEMIA

BITS PILANI GOA, DEPT. OF PHYSICS | TEACHING ASSISTANT

Aug 2020 - Dec 2020 | Goa, India

Teaching assistant to **Dr. Gaurav Dar** for the course Computational Physics.

Conducted weekly labs and assignments based on numerical methods and simulations in MATLAB.

BITS PILANI GOA, DEPT. OF PHYSICS | RESEARCH PROJECT

Jan 2020 - Jan 2022 | Goa, India

Worked with **Dr. Kinjal Banerjee** and **Dr. Tuhin Malik** on the application of machine learning to estimate nuclear masses. Our work got published in the Journal of Cosmology and Astroparticle Physics (JCAP).

RESEARCH PUBLICATION

- [1] U. Murarka, K. Banerjee, T. Malik, and C. Providência. The neutron star outer crust equation of state: a machine learning approach. *Journal of Cosmology and Astroparticle Physics*, 2022(01):045, jan 2022.