

Bhumika Mittal

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EDUCATION

ASHOKA UNIVERSITY

BACHELOR OF SCIENCE, COMPUTER SCIENCE

August 2021 - Present | Sonipat, India

CGPA - 3.85/4.00

MAHESHWARI GIRLS PUBLIC SCHOOL

HIGH SCHOOL DIPLOMA

February 2008 - July 2020 | Jaipur, India

AISSCE (Science Stream): 95.4%

EXPERIENCE

IIT GANDHINAGAR | RESEARCH INTERN

May 2023 - Present | Remote

- Exploring frameworks for designing and evaluating DNN accelerators
- Simulating various architectures using simulators like Timeloop
- Area of work - **Computer Architecture, Systems for ML, Deep Neural Networks**

PLAKSHA UNIVERSITY | TEACHING STAFF

May 2023 - July 2023 | Mohali, India

- Curated and taught a course on **Microcontrollers** to 200+ high school students
- Designed **Game Dev** Module - built 5 mathematical and hardware games
- Helped students build various **IoT Projects** using ESP32 chipset and other electronic components

ASHOKA UNIVERSITY | 3 × TEACHING ASSISTANT

Fall 2022, Spring 2023 | Sonipat, India

- TA for Introduction to Computer Programming, Discrete Mathematics, Strategy through Board Games
- Conducted weekly discussion sections and office hours for **60+ students**
- Responsible for designing and evaluating assignments
- Student Feedback: **4.88/5**

BRAND WARIKOO | TECH AND PRODUCT INTERN

Feb 2021 - April 2022 | Remote

- Ideated and built *WebVeda* for entrepreneurial courses, hosting **300k learners**
- Generated revenue of **\$1Mn** within 10 months
- Integrated zapier, payment gateway, and email automation

RESEARCH EXPERIENCE

ON THE EXISTENCE OF BALANCED GENERALIZED DE BRUIJN SEQUENCES | DISCRETE MATHEMATICS JOURNAL

Jan 2022

- **Abstract:** A balanced generalized de Bruijn sequence with parameters (n, l, k) is a cyclic sequence of n bits such that (a) the number of 0's equals the number of 1's, and (b) each substring of length l occurs at most k times. We determine necessary and sufficient conditions on n, l , and k for the existence of such a sequence.

SKILLS

PROGRAMMING

Over 5000 lines:

Java • Python3 • C • \LaTeX

Over 1000 lines:

Assembly • SQL • Shell • HTML/CSS

Familiar:

SML • Scratch • R

BUILD TOOLS

Github • Arduino • Raspberry Pi Pico

OTHER TOOLS

Power BI • no-code tools • MS Excel

HONORS AND AWARDS

2022 Undergraduate Research Excellence Award

2021-23 Dean's List

2022 AWS AI & ML Scholarship

2022 EUREKA! Stage 2 Winner

2019 Most Powerful and Serene (Best Student) Award

2019 National Ideationology Challenge Winner

2019 Best in IT Award

2018 National Cyber Olympiad School Topper

2017 District Level Shot Put Competition Runner Up

COURSEWORK

Computer Organisation and Systems

Operating Systems

Machine Learning

Software Debugging

Data Structures

Algorithm Design and Analysis

Linear Algebra

Discrete Mathematics

Calculus

Security Engineering

Probability and Statistics

Symbolic Logic

Artificial Intelligence and Data Analytics

ACTIVITIES

CS Representative

Computer Science Society

Entrepreneurship Club

Innovator, Lehigh University

Mehta Fellow, PROMYS 2020-21