

Naksatra Kumar Bailing

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EDUCATION

Newcastle University

Masters in Data Science (with Specialization in Artificial Intelligence)

Newcastle, UK
September 2023

Indian Institute of Science Education and Research

Dual degree Bachelors of Science and Masters of Science Programme
Majors in Mathematics and Statistics with 7.14 CGPA

Kolkata, India
July 2022

S.S. High School and Vishwajyot High School

Passed Maharashtra State Board of Higher Secondary Education with 85.08%
Passed Indian Certificate of Secondary Education with 95.8%

Navi Mumbai, India
Feb 2017 / Mar 2015

PROJECTS

Theoretical and Business oriented data analytics

Developed models around CIFAR-10, Breast Cancer Data and Palmer Penguins data.
Generated Latex reports and provided analytics with the subject content in mind
Developed Business report for Moodle data and provided detailed reports with areas of possible improvement

2022-Present

Automatic Generation of Legal Ontologies (Master's Thesis)

Discussed the methodologies and history of judicial document handling
Developed and observed how well an almost automatic ontology generation performs
Provided an alternate mechanism for lawyers to refer previous court cases and relevant documents

2021 – 2022

Time Series Analysis Project

Focused on the daily consumption of electricity in Indian Households and presented as a solo semester project
Used ARIMA and Kalman filter for forecasting and some residuals diagnostic to successfully predict with 65% accuracy
Studied seasonal/yearly changes and provided a clean GUI for interacting with the data easily

Winter 2021

Elliptical Curve Cryptography (Summer Internship)

Took up a summer reading project, under the guidance of Dr. Anupam Saikia at IIT Guwahati
Studied about algebraic geometry and elliptical curve cryptography, and prepared a report on the recent findings on the subject

Summer 2019

Chess Bot (Lambdex)

Created a Chess bot on Lichess with the backend completely in C++ and added as many modern C++ features
Added a TUI interface with ASCII Art to represent the chess board and its states
Lambdex looks ahead into 4 moves successfully in ~3-4 seconds and plays the best move it sees fit

Present

LEADERSHIP & ACTIVITIES

Slashdot Coding and Designing Club

Founder / Codechef Chapter Head

Founded the coding and design club at IISER Kolkata (April 2021). Gave multiple talks on blender and cryptography
Connected with Codechef to start a College Chapter at IISER Kolkata

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Treasurer

Interacted with IISER Kolkata administration and sponsors on a daily basis to enable the success of the event

Newcastle AI Lab (NAIL)

Reading Group Member

Monthly reading and discussion of papers and progress in artificial intelligence.

Worked on w-ood(weakly supervised segmentation on out of distribution data) with other optimizers to see changes in effect.

RESEARCH SKILLS

Primary skills : Statistics, Deep Learning, Computer Vision, Natural Language Processing, Artificial Intelligence

Teaching Assistant : (IISER-K) Introduction to Python (2020), (IISER-K) Introduction to Data Structures and Algorithm in C (2021)

Interest Areas : Image segmentation, Programming Languages, Low-Level Programming

SKILLS & INTERSETS

Technologies : Python, C++, R, Latex, OpenGL, Tensorflow, Torch, Blender, NetworkX, Scipy, OpenCV, Lisp, Octave, Matlab, ASM

Workshops : Vijyoshi Camp 2017, SAIL 2021 Conference, SparkAR Facebook

Languages : English (IELTS-8.0), Assamese (Mothertongue), Hindi (Native), Bengali (Intermediate)

Soft Skills : Listener, Public Speaking, Friendly, Truthful, Dedicated, Realist

Interests: Graphics Development, Linux Drivers, Pure Mathematics, Classical Music, Gym