ARGHYADIP CHAKRABORTY

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EDUCATION

Chennai Mathematical Institute July 2022 - Present
MSc Computer Science CGPA: 8.23/10

Indian Statistical Institute, Bangalore Centre July 2019 - May 2022
Bachelor of Mathematics (Honours) Percentage: 84.46%

Ramakrishna Mission Vidyapith, Deoghar June 2017 - April 2019
All India Senior School Certificate Examination Percentage: 95.6%
Central Board of Secondary Education

Acme Academy, Kalna April 2012 - April 2017
Indian Certificate of Secondary Education Percentage: 95.6%
Council For The Indian School Certificate Examinations

ACADEMIC INTERESTS

Computer Networks, Algorithms

RESEARCH EXPERIENCE

Master's Thesis October 2023 - Present
Advisor: Prof Prajakta Nimbhorkar, CMI
Topic: Optimal Capacity Modification for Many-To-One Matching Problems

PROJECTS

Secret Handshake Protocol Summer Internship (May - July 2023)
Mentor: Siddharth Naithani, SubCom

– Defined a handshake protocol for secure peer-to-peer communication using cryptography techniques

Tools: Rust

Android Rust Service Summer Internship (May - July 2023)
Mentor: Siddharth Naithani, SubCom

– Integrated Rust native libraries into an Android project

Tools: Rust, Java, Gradle, Docker

privacy-sexy-rs Summer Internship (May - July 2023)
Mentor: Siddharth Naithani, SubCom

– Built an open-source tool to enforce privacy & security best-practices

Tools: Rust, YAML

Ethereum Word Game Course Project (Dec 2022)
Instructor: Prof Madhavan Mukund and Prof S P Suresh, CMI

– Built an antakshari like word game on the Ethereum Blockchain

Tools: Solidity, Truffle, Ganache, TypeScript, Node.js, Svelte, TailwindCSS

PROJECTS (CONT...)

Craww   Course Project (Nov 2022)
Instructor: Venkatesh Vinayakarao, CMI

– Built an Gemini (protocol) Capsule crawler in Rust

Tools: Rust, SQLite, Docker

Customer Service ChatBot   Summer Internship (May - June 2022)
Mentor: Rajarshi Ray, WTW

– Built a ChatBot POC that infers customer's issue and sentiment from chat text using NLP

Tools: Java, Python, fastText, JavaScript, React, Docker

Rapid Prediction of Soil Quality Indices   Course Project (Oct - Dec 2020)
Instructor: Prof Rituparna Sen, ISI Bangalore

– Recreated prediction models on NIRS data to predict soil macro-nutrients (like N, P, K) using Detrending, Principal Component Regression and Leverage Validation

Tools: Python, R

COURSES UNDERTAKEN

MS
Algorithms, Blockchains, Concurrent Programming, Data Mining and Machine Learning, Distributed Computing and Big Data, Information Retrieval, Interactive Theorem Proving with Coq, Mathematical Logic, Natural Language Processing, Programming Language Concepts, Functional Programming in Haskell, Theory of Computation

BMath
Algebra, Analysis, Combinatorics, Complex Analysis, Computer Science, Differential Equations, Differential Geometry, Differential Topology, Graph Theory, Optimization, Physics, Probability Theory, Statistics, Topology

SKILLS

Technical	Rust, Python, JavaScript, Java, C, Haskell, Solidity, Go, R, HTML + CSS, Git, GitHub, LaTeX, Database (SQL, MongoDB, Redis), Cloud (AWS, Oracle Cloud, Docker, Ansible, Terraform), etc
Languages	Bengali(Native), English(Fluent), Hindi(Fluent), German (A1)

PROFESSIONAL EXPERIENCE

– **System Engineer (Intern)** at Subconscious Compute   May - July 2023
– **Software Engineering Intern** at Willis Towers Watson   May - June 2022
– **Cloud and Web Developer** at LibYard Ecommerce Private Limited   August - November 2020
– **Subject Matter Expert** in Computer Science, Chegg India Private Limited   January - February 2020

ACADEMIC ACHIEVEMENTS

– Selected for the ACM India Winter School on "Full-stack Networking (FSN)" 2023

– Selected for Shriram Scholarship for Master's Programme in CMI

– Received admission offer for Masters Computer Science Program from Institut Polytechnique de Paris

– Ranked 54th in Bachelor of Mathematics entrance examination of Indian Statistical Institute

POSITION OF RESPONSIBILITY

Chennai Mathematical Institute January 2023 - Present
Role: Teaching Assistant (Programming Language Concepts)

Chennai Mathematical Institute January 2023 - Present
Role: Teaching Assistant (Distributed Computing and Big Data)

Chennai Mathematical Institute August - December 2023
Role: Teaching Assistant (Programming in Haskell)

– Assisted with assignment grading, doubt clearing and tutorials

– Built an automated Haskell assignment grader that integrates with Moodle

Sai University August - December 2023
Role: Teaching Assistant (Distributed Computing and Big Data)

– Assisted with assignment grading, doubt clearing and tutorials

Tessellate August 2023 - Present
Role: Developer, DevOps, SysAdmin 🌐

– Managed projects, designed integrations

– Managed in-campus and cloud systems and databases

– Managed automated deployments (CI/CD)

Tools: Typescript, Svelte, TailwindCSS, Cloudflare, PostgreSQL, Rust, Docker, Ansible

LIMIT January 2020 - July 2022
Role: Organizer, Developer, DevOps, SysAdmin 🌐

– Organized the exam and camp

– Developed website, integrations and automations

– Managed in-campus and cloud systems and databases

– Managed automated deployments (CI/CD)

Tools: JavaScript, Node.js, React, TailwindCSS, Python, Django, MariaDB, MongoDB, AWS, Oracle Cloud, Docker, Ansible, Terraform

HOBBIES

Video Games, Carrom, Volleyball, Card Games, Table Tennis, Listening to Music