HARSH WASNIK | 20MA20023

MATHEMATICS & COMPUTING (M.Sc. 5Y)

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2025	M.SC(5YR)	IIT Kharagpur	7.80 / 10
2020	CBSE Class 12	Tuli Public School	85.00%
2018	ICSE Class 10	Marie Poussepin's Academy	91.57%

INTERNSHIPS

Infrastructure Engineer & Product Manager | SyncMOF | Nagoya, Japan **[May'24 - Jul'24]**
- Utilised **AWS Amplify** and **EBS** to deploy the project and set up CI/CD pipeline using **AWS CodePipeline** automating the deployment
- Deployed **Graph DB** using **AWS Neptune** and connected it to Flask backend using **gremlinpython** by implementing connection pooling
- Optimised cloud resource utilisation by changing AWS Neptune and **Aurora** as **serverless** instances reducing operational costs by **25%**
- Developed python scripts to convert **Networkx** graph to **Gremlin** queries providing support for CRUD operations in Flask for Graph DB

Full-Stack Developer Internship | Infinte Loop Technologies Private Limited | Mumbai, India **[Jun'22 - Aug'22]**
- Engineered a **video-live streaming** sever featuring RTMP ingest and HLS delivery using NGINX supporting upto **512** simultaneous streams
- Implemented live chat feature by using **Django Channels**, thereby utilising the **WebSockets** protocol enabling real-time communication
- Converted monolithic to **microservices** architecture by **dockerising** application and migrated from Django 2.2 to 4.2 improving support
- Developed APIs using DRF to support CRUD operations for various types of social media posts along with APIs for live video streaming

PROJECTS

ONDC Catalogue Scoring | Build for Bharat Hackathon **[Jan'24 - Feb'24]**
Objective: To develop a full stack catalogue scoring mechanism to ensure items listed on ONDC contain valid information within 30 days
- Engineered a system to assess **product completeness** by evaluating product attributes, image quantity, resolution, sharpness, and noise
- Implemented **compliance** verification by checking category-specific rules for products ensuring **100%** adherence to **mandatory standards**
- Integrated **Google Cloud Vision API** to validate **correctness**, including colour verification, object detection & offensive content screening

Resume Scoring Tool | Self Project **[Sep'23 - Oct'23]**
Objective: To develop an AI powered application that recommends the most relevant candidates for the job description by parsing the resume
- Automated candidate shortlisting by creating a resume scoring tool using Django Rest Framework for APIs and React.js for frontend
- Extracted text from **15,000+** resumes with **95%** accuracy using **PyMuPDF** and applied OCR with **Pytesseract** for text under 50 characters
- Integrated OpenAI API with **GPT-3.5 Turbo** model to parse resume content, computing relevance scores to optimise candidate shortlisting

COMPETITION/CONFERENCE

Hack-an-Intern | Density | Bronze **[Oct'22 - Nov'22]**
Objective: To Implement a trading platform where users can trade tokens amongst other users while supporting different types of orders
- Among the **top 3** teams in a 48-hour long institute-wide Hackathon, which received participation from more than **20** different teams
- Built a user-friendly interface using **React.js**, **Ant Design** and utilised **Highcharts.js** to incorporate dynamically updating price charts
- Designed and implemented a **stock price matching** algorithm for limit and market orders, enabling dynamic pricing using Django backend

Website Hackathon | Technology Students' Gymkhana, IIT Kharagpur | Gold **[Dec'21 - Jan'22]**
Objective: To develop a one-stop solution to manage all co-curricular and extra-curricular activities under the purview of TSG, IIT Kharagpur
- Led a team of 11 members to win the podium in multiple categories and achieved the prestigious **First Position** amongst 30+ teams
- Built a **React.js** website served by APIs built using **django-rest-framework** with **jwt** authorisation and email verification via a 6-digit OTP
- Incorporated features like Bill Reimbursement Portal, Grievance Portal, real-time Notifications, and Admin Panel for content management

SKILLS AND EXPERTISE

Languages: C | C++ | Python | JavaScript | SQL **DBMS:** MySQL | MongoDB | Sqlite **Developer Tools**: Git | GitHub | Docker | AWS | Linux
Frameworks: Reactjs | Nextjs | Flask | Django | DRF | Selenium | Redux | Nodejs* | Material UI | Tailwind CSS | Shadcn UI [*familiar]

COURSEWORK INFORMATION

File Organization and Database Management System | Design and Analysis of Algorithms | Programming and Data Structures | Big Data Analysis | Computer Organisation Architecture | Usable Security and Privacy | Computer Network │ Regression Analysis and Time Series

POSITIONS OF RESPONSIBILITY

Associate Manager | Entrepreneurship Cell, IIT Kharagpur **[Aug'21 - Jun'22]**
- Automated the certificate generation & distribution process by innovating a **certificate generator** app for 3000+ participants of EAD'22
- Contributed to various tech projects of E-Cell such as Startin 12.0 portal, EAD-LSM Website, and Global Entrepreneurship Summit website

Tech Team Sub-Head | Kshitij, IIT Kharagpur **[Aug'21 - Jun'22]**
- Developed and managed the Kshitij'22 website driving **19,500+** registrations and the Admin Panel enabling efficient content management
- Boosted the desktop performance of Kshitij'22 website on PageSpeed insights to **88** by **lazy loading** and reduction of network payload

EXTRA CURRICULAR ACTIVITIES

- An active Member of the NSO Health and Fitness [2020-22] and Technology Aquatics Society on Campus and practised skating as a hobby

!Self declared by the student, CDC could not verify the relevant documents