Vamshikiran Morlawar

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EDUCATION

Year	Degree/Certificate	Institute	CPI/%
2022-Present	M.Tech/Computer Science & Engg.	Indian Institute of Technology, Kanpur	8.86/10
2016-2020	B.E/Information Technology	International Institute of Information Technology, Pune	9.28/10
2016	HSC(XII)	Rashtramata Indira Gandhi College, Jalna	79.85%
2014	SSC(X)	Shri MS Jain English School, Jalna	96.60%

EXPERIENCE

- **Pepsico India** - Intern   (*Jun'23 - Aug'23*)
  - Developed a system to visualize Pepsico's employee organizational structure across different hierarchical levels
  - **Applied insights from coursework in Big Data Visual Analytics**, effectively translating concepts into an impactful solution
  - Collaborated with cross-functional teams, delivered the project within the timeframe, and received positive feedback
- **Innocean Worldwide Europe, Germany** - Web Developer   (*Jun'22 - Aug'22*)
  - **Collaborated with major brands Hyundai and Kia** to elevate design and user interaction through dynamic web modules
  - Built an interactive slider and questionnaire module enhancing **Hyundai's flagship Brand 3.0 Page**
  - Created a module letting users easily explore different car models for **Kia's Range Campaign Landing Page**
- **Techverito Software Solutions, Pune** - Consultant   (*Aug'20 - Mar'22*)
  - **Crafted skills as a versatile Full Stack Developer**, dedicating efforts to both internal projects and client-centric solutions
  - Harnessed the power of comprehensive training to excel in **writing clean code** and **master Agile methodologies**
  - Played a key role in the successful revamp for a Canadian insurance client's website within a 3-month timeframe
  - **Earned recognition** from the client's manager for outstanding work, leading to positive feedback

PROJECTS

- **Feature-Rich Research Platform with Infrastructure Optimization** (M.Tech Thesis)   (*Mar'23 - Present*)
  Guide: Prof. Arnab Bhattacharya
  - Designing a platform hosting content in multiple languages, ensuring users can contribute and access content seamlessly
  - Developing to **handle high traffic loads efficiently**, ensuring optimal performance even during peak usage
  - Planned integration of **AI/ML** to enhance content discovery and assist writers in generating high-quality content
  - Developing the project as **an open-source initiative**, encouraging contributions, and fostering collaborative development
- **Blockchain-based Recruitment Management System** (CS731A) | Prof. Angshuman Karmakar   (*Jan'23 - Apr'23*)
  - Developed a **decentralized application with smart contracts in Solidity**, driving the functionalities on the blockchain
  - Crafted a user-friendly interface using React and engineered the backend infrastructure utilizing Express and Node.js
  - Achieved **exceptional score of 110 out of 100**, including bonus points for the project's execution
- **Captcha Solver** (CS771A) | Prof. Purushottam Kar   (*Aug'22 - Nov'22*)
  - Utilized **HSV model** to improve CAPTCHA text character detection by identifying background pixels in the image dataset
  - Implemented brightness-based thresholding for precise character-background separation to segment individual character
  - **Achieved 100% accuracy** in character classification by **training a multiclass SVM model** using flattened image data
- **Program Analysis, Verification and Testing** (CS639A) | Prof. Subhajit Roy   (*Aug'22 - Nov'22*)
  - **Performed Data Flow Analysis** to generate optimized IR(Intermediate Representation) for a kachua program
  - Developed custom mutation operations for a **fuzzing** framework to maximize kachua program coverage
  - Synthesized unknown constants using **Symbolic Execution** to make two kachua programs semantically equivalent
  - Applied **Abstract Interpretation with interval domain** to verify the correctness of the kachua program

SKILLS

- **Languages/Utilities:** C, C++, Python, JS, PHP, SQL, HTML, CSS, React, Node.js, REST API, Git, TDD, Agile, Adobe Suite, UI/UX

ACHIEVEMENTS

- Secured **All India Rank 343** in GATE CS 2022 out of 77,257 candidates
- Awarded for designing a Logo and Website for the department of **Indian Knowledge System(IKS) at IIT Kanpur**
- **Overall Academic Achievement Award** 2019-20
- **Special Technical Category Award** 2019-20
- **Academic Excellence Award** 2018-19
- **Infosys Certified Software Programmer** 1922 selected among 62K+ applicants
- Selected for **Persistent Computing Institute(PCI) Winter School 2018** at Persistent Systems, Pune
- **First Prize in Web Weaver** at Credenz'17 by **Pune Institute of Computing Technology IEEE Student Branch**

POSITIONS OF RESPONSIBILITY

- **Teaching Assistant** Mathematics for Computer Science (CS201)   (*Aug'23 - Present*)
- **Teaching Assistant** Fundamentals of Computing (ESC111/112)   (*Nov'22 - July'23*)
- **Chairperson** at **ACM Student Chapter** and ITSA   (*2019-20*)

COURSES

- **Postgraduate:** Program Analysis, Verification and Testing | Intro to ML | Big Data Visual Analytics | Modern Cryptology | Blockchain Technology and Applications | Hardware Security for IoT | Sensing, Comm & Networking for Smart Wireless Devices
- **Undergraduate:** Problem Solving and OOPS | DBMS | Data Structures and Files | Design Analysis of Algorithm | OS