

EDUCATION

**Masters in Computer Science, University of North Carolina at Charlotte, NC (GPA: 3.5)**

Aug '23 – May '25

Coursework: Network-based Application Development, Database Systems, Algorithm & Data Structures, Intelligent Systems, Computer Communications and Networks, Data Mining, Visual Analytics

**B.E in Computer Science, Vishwakarma Institute of Technology, Pune, India (GPA: 3.4)**

Aug '19 – June '23

Coursework: Design and Analysis of Algorithms, Computer Architecture & Operating Systems, Data Science, Data Structures, Artificial Intelligence, Data Communication and Networks

WORK EXPERIENCE

University of North Carolina

**Graduate Research Assistant**

Charlotte, NC

Mar '24 – Aug '24

- Boosted research productivity by 25% by developing a Unity VR environment that dynamically adapts to real-time breath and heart rate data from Empatica and Biopac devices using socket connections, enhancing user immersion and opening new possibilities for stress management and therapeutic applications in VR
- Developed Python pipelines using NumPy and Pandas to process and analyze large datasets from fNIRS and ECG/RSP sensors, ensuring data integrity through advanced cleaning and preprocessing techniques
- Conducted VR experiments with 60 participants to simulate environments, performed in-depth analysis with Kubios and machine learning models, created visualizations to communicate findings to stakeholders, and collaborated with cross-functional teams to refine data collection and analysis methods, contributing to impactful research outcomes

Book By Slot

**Data Research and Software Intern**

Remote, India

Nov '21 – Jan '22

- Optimized back-end systems and integrated social media platforms, enhancing operational efficiency and boosting user engagement by 30%. Conducted data-driven market research on MSMEs, leading to tailored financing solutions
- Enhanced customer interaction by 40% and established connections with over 20 clients through data analysis

SKILLS

- Programming Languages:** Python, C, C++, JAVA
- Libraries:** Keras, NumPy, Pandas, Matplotlib, TensorFlow, MIFlow, Sklearn
- Cloud and Front-End Technologies:** AWS, HTML, CSS, Bootstrap, Angular.js, React.js, Tableau
- Back-End Technologies:** MySQL, SQL, Node.js, MongoDB

ACADEMIC PROJECTS

**MERN Stack Project**

Oct '23 – Dec '23

- Developed a responsive, cross-platform personal budget web application using the MERN stack, featuring an intuitive React.js UI with secure login and interactive dashboards. Integrated MongoDB and deployed on DigitalOcean for robust backend services, enabling efficient financial tracking with dynamic visualizations
- Addressed the need for effective online budget management, significantly enhancing user experience in personal finance tracking and demonstrating advanced full-stack development skills. This project showcased expertise in data analysis and web application development, leading to improved user engagement and satisfaction

**Semiconductor Wafer Defect Detection Using Deep Learning (Final Year Project)**

Feb '23 – May '23

- Revolutionized semiconductor defect detection by skillfully implementing advanced YOLO v8 and v5 models, achieving a remarkable 96% accuracy and significantly streamlining complex quality control processes
- Leveraged expertise in computer vision and machine learning using Python, TensorFlow, and OpenCV for real-time micro-defect detection. Automated detection with groundbreaking precision, reducing downtime and production costs

**Financing System**

Sept '22 – Dec '22

- Identified the need for simplified loan access for small entrepreneurs and initiated the development of an online platform to connect them with high-yield lenders, focusing on reducing traditional loan paperwork
- Successfully developed and launched a streamlined lending platform, which significantly improved the efficiency of lender - borrower connections, thereby enhancing short-term loan accessibility for small business owners

**Stock Price Prediction**

Sept '21 – Dec '21

- Addressed the need for sophisticated stock analysis in finance by developing a Python application with LSTM networks, incorporating Keras, TensorFlow 2.0, Matplotlib, and Sklearn for significantly enhanced data
- Achieved successful stock price prediction, demonstrating the application's capability in robust technological integration for accurate financial forecasting

**Fake Image Detection System**

Sept '20 – Dec '20

- Developed a Python-based GUI for detecting JPEG image modifications, integrating advanced techniques like Histogram Method, Reverse Searching, Metadata and Error level analysis, resulting in a precise, robust system for reliable alteration detection and enhanced authenticity verification.

CERTIFICATIONS & ONGOING EDUCATION

- Google Data Analytics Professional Certificate
- The Data Science Course 2022: Complete Data Science Bootstrap

ACHIEVEMENT

**Paper Publication of Semiconductor Wafer Defect Detection Using Deep Learning**

May '23

- Published in HTL Journal(High Technology Letters) Volume 29, Issue 5 | Impact Factor: 2.7