

Shinit Dinesh Shetty

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Education

Masters in Computer Science, North Carolina State University

GPA - 3.60/4.00

August 2023 — May 2025

Relevant Courses - Design and Analysis of Algorithms, Software Engineering, DBMS, Neural Networks, Automated Learning and Data Analytics, Foundations of Data Science, Artificial Intelligence, Cloud Computing, Privacy

Bachelors of Engineering in Computer Engineering, University of Mumbai

CGPA - 8.98/10

August 2019 — June 2023

Relevant Courses - Operating System, Distributed Systems, Deep Learning, Data Science, Data Warehouse Mining, Big Data Analysis, Deep Learning, Data Mining, System Programming and Compiler Construction, Digital Logic Computer Organisation and Architecture

Technical Skills

Languages: C++, C, Python, HTML, CSS, JavaScript, Java, Swift, R, Verilog

Databases and Operating System: MySQL, SQLite, MongoDB, Linux, MacOS, Windows, Ubuntu

Tools/Frameworks and Cloud Systems: Flask, Django, Jupyter Notebook, OpenCV, PyTorch, TensorFlow, Pandas, Keras, Scikit Learn, Microsoft Office, PowerBI, Regression, Spark, Hugging Face, AWS, Docker, Heroku, Google Cloud Platform, REST API

Work Experience

Software Developer Intern, Cadence Design Systems

May 2024 — Present

- Contributed to the development and debugging of Xcelium compilers by implementing a tool to automate failure detection and identify memory surges, reducing a multi-step, hours-long process to a single command, significantly improving debugging efficiency.
- Developed analytics tools that pinpointed issues across hundreds of test cases, automating insights that would otherwise require extensive manual analysis, accelerating troubleshooting.
- Improved the configuration layer for Verilog optimization, achieving a 30% increase in processing speed and added new features to provide more flexible control over optimization settings, resulting in enhanced performance and adaptability.
- Enhanced performance profiling for Xcelium by integrating detailed logging and monitoring capabilities, enabling more granular tracking of execution times and resource usage across various simulation runs.
- Currently helping to optimize the memory profile and CPU time for Verilog programs, leading to more efficient simulations and resource management.
- Developing enhanced debugging utilities to streamline the identification and resolution of issues in complex simulation scenarios, providing a more developer-friendly environment.
- Implementing advanced options for Verilog program configurations, offering users greater flexibility and control over performance settings.
- Continuously refining tools and techniques to support large-scale testing and analysis, ensuring consistent improvements in Xcelium's scalability and reliability.

Software Developer Intern, ChronicleHouse

May 2022 — Oct 2022

- Coordinated with the content writing team and developed a cutting-edge AI Writing Assistant powered by transformer models and advanced natural language processing techniques using exhibiting a 20% increase in content generation efficiency and achieving a 90% accuracy in contextually relevant suggestions.
- Leveraged industry-standard frameworks including TensorFlow and Keras on complemented by Hugging Face's state-of-the-art libraries, to design a deep learning pipeline with a 30% reduction in training convergence time and a 15% improvement in model inference speed.
- Deployed the website on Amazon Web Services (AWS) utilizing auto-scaling groups and content delivery networks (CDNs) to ensure low latency and high availability across the globe which led to a 30% reduction in page load times and a 99.95% uptime.

Academic and Professional Projects

Clinical Machine Learning and Deep Learning (Cervical Spine Fracture Detection)

- Preprocessed the datasets which consists of 706,650 CT scans and created a software solution combining deep learning and medical data to automate trauma severity assessment from DICOM images, accomplishing 90% accuracy.
- Applied U-Net with EfficientNet encoder for precise cervical spine section detection, obtaining a 95.19% segmentation correctness and integrated YOLOv5 for bone fracture detection, reaching 97% accuracy, advancing healthcare diagnostics.

Malware Detection Using Binary Image Representation

- Built malware detection exploiting a dataset of 32 categories, enhancing precision with image classification, succeeding a 98% true positive rate and addressed class imbalance using SMOTE, which generated synthetic data, resulting in a 10% precision increase.
- Developed a CNN with feature extraction for image categorization, achieving 92.09% accuracy in robust malware detection through ensemble learning for precise threat classification.

Publications And Achievements

IEEE International Conference on Power, Instrumentation, Control and Computing (PICC - 2023) :- [Link](#)

International Conference on Recent Trends in Multidisciplinary Research and Innovations (ICRMIR - 2023, Page 57) :- [Link](#)

3rd prize winner in the ISTE-approved National Level Project Competition - DJASCII.

Runner-up in the National Level Project Competition "Innovations 2023" conducted by The Computer Society of India.