Narein Boddapati

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Education

University of Cincinnati — Cincinnati, OH
Bachelor of Science in Computer Science — *May 2028*
- GPA: 3.85/4.00

Experience

Research Assistant — Aug 2025 – Present
Feng Chia University — *Taichung, TW*
- Implemented and trained **LeNet**, **ResNet**, and **U-Net** architectures for **classification** and **image segmentation** tasks, achieving **high pixel-level accuracy** and gaining hands-on experience in **deep learning pipelines**
- Developed and debugged **Python** scripts to **preprocess datasets**, **train models**, and **evaluate performance**, improving **model reliability** and gaining experience in **end-to-end neural network workflows**
- Collaborated with a faculty mentor to design experiments and apply modern **deep learning techniques**, ensuring **accurate results** and enhancing **research efficiency**

Digital Technology Solutions Worker — May 2025 – Aug 2025
University of Cincinnati — *Cincinnati, OH*
- Validated **Angular** web application against **CAD** plan documents, integrating **MapsIndoors** and resolving inconsistencies, improving **front-end reliability** and **testing accuracy**
- Developed reusable **UI components**, enhancing **responsiveness** and **usability** while aligning with project requirements and gaining hands-on experience in **modern web development**
- Provided third-level support in an **Agile** environment, debugging code and optimizing performance to maintain high **system stability**

Software Applications Intern — Jan 2025 – Apr 2025
Danlaw — *Novi, MI*
- Enhanced an **Angular** application by creating new pages, modifying functionalities, and implementing **responsive, user-friendly features**, improving **front-end performance** and **usability**
- Authored and maintained API documentation using **OpenAPI**, ensuring clarity and accessibility for **developers** and cross-functional teams
- Collaborated with team members to troubleshoot, debug, and deliver high-quality solutions, contributing to **successful project outcomes** and **workflow efficiency**

Projects

Plant Disease Detection | *Python, Vision Transformer, Pytorch, Computer Vision* | *View Project*
- Designing an image classification system for **plant disease detection from leaf images** by **fine-tuning a pre-trained Vision Transformer (ViT)**, leveraging the **Hugging Face** model hub for transfer learning
- Sourced a multi-class plant **leaf image dataset** from **Kaggle** and built the complete **PyTorch** training pipeline, including custom data preprocessing and augmentation, in preparation for model evaluation

ResNet-50 CIFAR-10 project | *Python, PyTorch, CIFAR-10*
- Implemented a **ResNet-50** convolutional neural network in **PyTorch** to classify **CIFAR-10** images, applying data augmentation, weight decay, and learning-rate scheduling to reduce overfitting and improve generalization
- Optimized the end-to-end training pipeline with GPU acceleration and custom data loaders, achieving **90.57% training accuracy** and **86.82% validation accuracy** after 15 epochs with only a **3.75% generalization gap**

Personal Portfolio Website | *Angular, TypeScript, EmailJS* | *Live Demo*
- Built a responsive, mobile-first portfolio using **Angular**, **TypeScript**, and **SCSS** for modular styling; integrated the **GitHub API** to fetch and display public repositories as dynamic project cards
- Implemented a serverless contact workflow using **EmailJS**—a user-facing form with client-side validation and error handling that routes submissions directly to my inbox

Technical Skills

Languages: Python, C++, JavaScript, TypeScript, SQL, HTML/CSS, MATLAB, VBA, LabVIEW
Frameworks & Libraries: Angular, Pytorch, NumPy, OpenCV, Scikit-learn, Pandas, Matplotlib, OpenAPI
Developer Tools: Git, GitHub, SourceTree, VS Code, Visual Studio, PyCharm, WebStorm, Swagger, Jira