

PROFILE

I'm an AI researcher with an M.S. in Computer Science from UMass Boston, with a strong interest in deep learning and computer vision. I've worked on projects like cancer detection and image segmentation, using neural networks to solve real-world healthcare problems. I enjoy turning complex research into practical tools that make a real difference—whether it's improving diagnostics, streamlining medical workflows, or helping teams make smarter decisions.

PUBLICATIONS

My research focuses on leveraging deep learning for medical image analysis, specifically for early breast cancer detection and diagnostic support.

- **RM-DenseNet: An Enhanced DenseNet Framework with Residual Model for Breast Cancer Classification Using Mammographic Images** [[InCACCT 2024 – Link](#)]
- **Diagnosis and Classification of Breast Cancer using Data Visualization and Deep Learning** [[ICRISST 2024 – Link](#)]

EXPERIENCE

- **Teaching Assistant – CS460: Computer Graphics**, University of Massachusetts Boston [[Course](#)] Sep 2025 – Present
 - Lead the course staff; coordinate grading workflows, announcements, and assignment logistics.
 - Teach and support students in computer graphics and web-based 3D visualization.
 - Share expertise in WebGL, WebGPU, Three.js, and XTK to build interactive graphics experiences.
 - Delivered a lecture on WebGPU fundamentals (adapter/device, WGSL shaders, render pipelines).
 - Design instructional materials and visual demos; hold office hours and provide Discord support.
- **Co-Founder & AI Researcher**, The AI Fantastic Team [[Community Spotlight](#)] May 2025 – Present
 - Co-led student research initiatives in AI and machine learning, contributing to experimental design and execution.
 - Collaborated with peers from CS, business, and marketing to explore AI's social and technical impact.
 - Helped grow the team's digital presence and community outreach through content sharing and events.
- **Machine Psychology Fellow**, UMass Boston [[GitHub](#)] [[Report](#)] Jan 2025 – Present
 - Improved diagnostic consistency in breast cancer scoring by automating DeepSight inference pipeline.
 - Built CNN and U-Net models for segmentation and classification of multi-view DICOM inputs.
 - Enabled reproducible research by modularizing pipelines and standardizing scoring formats.
- **Software Engineering Intern**, VIVO Services Jun 2023 – Jun 2024
 - Improved user experience by enhancing the Geo Attendance UI using HTML/CSS, resulting in smoother daily usage.
 - Contributed to key front-end modules across multiple projects, ensuring timely and consistent feature delivery.
 - Maintained a strong professional presence, earning team trust through reliable and high-quality work output.
- **AI/ML Internships (Remote)** May 2022 – Jan 2024
 - Built ML/DL models across roles at SYNC Interns, CodersCave, CodeClause, Bharat Intern, and Eduversity.
 - Projects included gender/age detection, COVID diagnosis, Titanic survival prediction, and NLP pipelines.
 - Gained expertise in Python, PyTorch, TensorFlow, data preprocessing, and evaluation metrics.
- **Cloud Intern**, AICTE (Remote) May 2023 – Jul 2023
 - Completed 10-week AWS Cloud internship, focusing on infrastructure, security, and scalable app deployment.
 - Developed cloud-native prototypes using EC2, S3, IAM, and CloudFormation for hands-on learning.
- **Web Development Intern**, Internshala (Remote) Oct 2022 – Nov 2022
 - Created responsive websites with HTML, CSS, Bootstrap, JS, and PHP during 8-week intensive training.
 - Earned 100% final score, demonstrating strong front-end skills and real-world UI development.

ACADEMIC PROJECTS

- **Autofolio (AI Portfolio Generator)** [[GitHub](#)] [[Slides](#)] Oct 2025 – Nov 2025
 - Built an AI-powered portfolio generator using React, Node.js, and Google Gemini AI.

- Generates responsive portfolio websites with HTML, CSS, JS, animations, and modern UI.
- Developed REST APIs for spec generation, asset creation, live preview, and ZIP export.
- **Knowledge Distillation** [\[GitHub\]](#) [\[Website\]](#) [\[Slides\]](#) [\[Poster\]](#) Apr 2025 – May 2025
 - Achieved over 60% accuracy using compact CNNs by distilling knowledge from larger models across real and synthetic datasets.
 - Conducted 13 controlled experiments using Google, Bing, and SD data to test generalizability.
 - Published findings with supporting UI, poster, and code repository for open access.
- **Image Colorization using Conditional GANs** [\[GitHub\]](#) [\[Slides\]](#) [\[Paper\]](#) Feb 2025 – May 2025
 - Restored grayscale images by developing a GAN-based pipeline using ResNet18, Dynamic UNet, and PatchGAN.
 - Delivered production-ready documentation, visuals, and a web demo for user testing.
 - Demonstrated effectiveness of generative modeling for creative restoration tasks in image processing.
- **AI Model to Predict Alzheimer's Diagnosis** [\[GitHub\]](#) [\[Report\]](#) Aug 2024 – Dec 2024
 - Achieved 95% test accuracy by training neural networks on Kaggle medical data using TensorFlow and PyTorch.
 - Preprocessed, encoded, and normalized input features and labels for model stability.
 - Demonstrated the effectiveness of ML for early-stage Alzheimer's screening in real-world settings.
- **Movie Verse Platform** Aug 2024 – Dec 2024
 - Improved user experience by building a genre-based movie filtering and review site with Flask and Chart.js.
 - Designed a full-stack architecture with SQLite backend and real-time data visualization dashboard.
 - Enabled personalized content exploration through interactive filtering and feedback loops.

EDUCATION

University of Massachusetts Boston M.S. in Computer Science — CGPA: 3.9 Relevant Courses: AI, Computer Vision, Algorithms, AI For All	Expected May 2026
SRM Institute of Science and Technology B.Tech in CSE (AI/ML Specialization) — CGPA: 3.46 Courses: DSA, OS, CO, Deep Learning, App Dev	Sep 2020 – Jun 2024

CERTIFICATIONS

- **AWS Academy** – Cloud Architecting, Cloud Foundations, Cloud Security Foundations (Jun–Nov 2023)
- **Coursera** – Advanced Learning Algorithms, Python for Data Science, Supervised ML: Regression and Classification (Mar 2023)
- **MathWorks** – Deep Learning, Image Processing, MATLAB Onramps (Dec 2022)
- **Skill-Lync** – Microsoft Azure AI Fundamentals, Web Development with ReactJS (Jan–Mar 2023)
- **University of Washington** – Machine Learning Foundations: A Case Study Approach (May 2023)
- **IBM** – Introduction to DevOps (Apr 2023)
- **Great Learning** – Computer Vision Essentials, MySQL Basics (Mar–Apr 2022)
- **Aspiring Minds** – Data Processing Specialist (Mar 2023)
- **HackerRank** – Python (Basic), SQL (Intermediate) (Apr 2023)
- **Internshala** – Web Development Internship (Jun 2022)

SKILLS

Languages & Web: Python, C, C++, Java, JavaScript, HTML, CSS, PHP, SQL, MySQL, Flask
ML/AI: TensorFlow, PyTorch, Scikit-learn, Transformers (Hugging Face), YOLO, spaCy, OpenAI Gym, Stable Baselines3
Libraries: Pandas, NumPy, Matplotlib, Seaborn, TensorFlow Object Detection API
Data & Visualization: Chart.js, Tableau, Excel, Jupyter, Google Colab
Tools: Git, GitHub, PyCharm, Visual Studio, IntelliJ IDEA, Eclipse, Teams
Deployment: TensorFlow Serving, Flask/FastAPI for ML APIs