

DILAN GANDHI

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EDUCATION

Rutgers University - New Brunswick

New Brunswick, NJ

B.S. Computer Science, B.S. Finance.

Expected Graduation: May 2028

Honors: IAFOR Undergraduate Research Symposium (Tokyo), 1st Place at NJAS Competition, AJAS Lifetime Fellowship

Relevant Coursework

- Data Structures, Linear Algebra, Computer Systems, Object Oriented Programming, Algorithms

WORK EXPERIENCE

AMNEAL PHARMACEUTICALS

June 2026 - Present

Software Engineering Intern

- Apply AI-assisted analysis across 750K+ sensor process records to identify recurring equipment failure patterns, improving anomaly detection accuracy by 20% across manufacturing and packaging operations.
- Develop data-driven troubleshooting frameworks and standardized diagnostic workflows, reducing manual diagnostic time by 50% and improving equipment reliability and knowledge transfer across engineering teams.

RUTGERS WIRELESS INFORMATION NETWORK LAB (WINLAB)

Computer Engineering Intern

June 2024 - August 2024

- Built and tested an 8-bit CPU architecture using breadboards, logic gates, and integrated circuits, implementing instruction execution, arithmetic operations, and low-level computer architecture concepts.
- Developed and tested automated signal sequencing and validation workflows using clock-cycle analysis to ensure accurate instruction execution, reliable control flow, and overall system correctness across multiple test cases.

University of Maryland - Computer Science Department

Research Intern

May 2025 - August 2025

- Built CUDA-accelerated training and inference pipelines for diffusion models across 300K+ images, achieving a 25% reduction in training time, 35% improvement in GPU throughput, and 15% reduction in GPU memory usage.
- Evaluated diffusion transformer architectures across multiple model scales, conducting performance benchmarking and model optimization experiments to improve large-scale inference latency by 20%.

ISTART VALLEY

Software Engineering Intern

June 2022 - October 2022

- Led a team of 4–5 interns to build Automate, a mobile app for sharing automotive tutorials, maintenance tips, and organizing local meet-ups, using React Native for cross-platform development and Firebase for backend services.
- Engineered scalable backend systems using Firebase, REST APIs, and cloud functions to automate authentication, content delivery, and event scheduling.

PROJECTS

CardiacCare | Python, PyTorch, NumPy

- Developed an end-to-end deep learning pipeline in PyTorch for ECG arrhythmia classification, achieving 97% accuracy through neural network optimization and hyper-parameter tuning to classify 8 arrhythmia categories.

A Statistical Insight Into the Correlation of Various Parameters and Suicide Rates | R, SPSS, Excel, Python

- Performed data analysis and statistical modeling on U.S. county-level datasets using R and SPSS, applying regression analysis and hypothesis testing to identify significant predictors of suicide rates.

In-Depth Analysis of Wavelet Transforms | Julia, MATLAB

- Implemented Fourier and wavelet-based image processing techniques in MATLAB and Julia for edge detection, feature extraction, and ECG signal analysis.

TECHNICAL SKILLS

Programming: Python, Java, C, Typescript, HTML/CSS, SQL, Kotlin, Julia, JavaScript

Frameworks & Libraries: React, REST APIs, AWS, GCP, Flask, Pytorch, NumPy

AI/ML & Technical: Machine Learning, Deep Learning, CUDA, Signal Processing, Computer Vision, LLMs

Tools & Platforms: Developer Tools: Git, Github Actions,, Linux, Redis, DevOps, MLOps, Agile, CI/CD