# Dayyan Hamid
### Software/Data Engineer

(609) 977-6880
Robbinsville, NJ
dh820@scarletmail.rutgers.edu

dayyanhamid.com
github.com/dayy346
linkedin.com/in/dayyan-hamid/

## EDUCATION & CERTIFICATIONS

**Major: Computer Science** , *Rutgers University, New Brunswick, NJ*  Expected Graduation — **May 2025**
  *Relevant Coursework:*  Principles of Info and Data Management, Data Structures, Discrete Mathematics, Systems Programming, Computer Architecture, Operating Systems and Design, Machine Learning Principles, Linear Optimization, Intro to Artificial Intelligence, Design and Analysis of Computer Algorithms, Probability and Statistics
**Certifications:**  *Software Design — Data Science Fundamentals — PowerBI Desktop*
**Currently Pursuing:**  *AWS Cloud Practitioner*

## TECHNICAL EXPERIENCE

**QA IRM Developer Intern**  **May 2024 — Sep 2024**
*Regeneron Pharmaceuticals*  *East Greenbush, NY*
- Developed applications using Microsoft Power Automate, JSON, Power BI, SharePoint, SQL, and PowerApps for cross departmental use; worked with the Software Developers and Automation Engineers to maintain these tools post-internship.
- Created and launched a SharePoint site to streamline department requests, handling over 1000 unique submissions in its first week, Increasing efficiency by 27%; received a superlative award from FTEs and a program extension for my contributions.
- Engaged in requirements gathering across departments to align projects with goals and gained experience with GxP computerized systems (DataMart, OpsTrakker) .

**Rutgers Math Instructor (Learning Assistant) - Discrete Mathematics**  **Sep 2023 — Dec 2023**
*Rutgers University*  *New Brunswick, NJ*
- Assisted instructor during recitations prepared and graded midterms, finals, and projects. Additionally held office hours.

## PROJECTS

**Discord Music Bot**  *Python, YouTube API, Discord API* | **Apr 2023 — Jul 2023**
- Developed a Discord music bot that streams YouTube audio in real time, integrating with Discord's server architecture.
- Used YouTube and Discord APIs for audio streaming and command handling (play, pause, resume, queue management).

**Price Tracker Web Extension**  *React.js, Puppeteer, Node.js, JSON, HTML/CSS, REST API* | **Oct 2023 — Nov 2024**
- Developed a web extension allowing users to track product prices and receive alerts for price drops.
- Built the frontend using React for the front end, while utilizing Puppeteer on the backend for automated price scraping. Also implemented a Node server that handled requests for price checks and sends updates to the front end.

**Custom Neural Network Model Generator Web Application**  *Flask, PyTorch, React.js, Docker, TensorFlow* | **Nov 2024 — Present**
- Built a full stack machine learning application for training, testing, and exporting custom image classification models.
- Initially developed as a machine learning class assignment to recreate the LeNet-5 architecture using Python and select libraries. After the assignment, I independently enhanced model flexibility with techniques like batch normalization, dropout, data augmentation, and customizable optimizers to improve generalization and support more diverse datasets.
- Designed a seamless communication pipeline between a React front end and a Flask back end, enabling real time model configuration, training progress updates (dynamic loading bar), and efficient data exchange for testing and exporting models.

**Crime Catcher AI Security System (Team Hackathon)**  *Tkinter, Flask, OpenCV, Vue.js, SQLite, PyTorch* | **Nov 2024**
- Developed an AI powered security system that monitors data feeds to detect weapons using machine learning models like YOLO.
- Implemented motion detection to optimize resource usage, ensuring processing only occurs when movement is detected.
- Integrated real-time alerts via email for weapon detection by setting up automatic recording when motion/dangerous objects were detected and emailing recordings to clients.

## EXTRACURRICULAR/LEADERSHIP ROLES

**Secretary (Executive Board),** *Pakistani Student Association*  **Sep 2022 — Present**
- Organized events, managed communications, and developed an NFC based attendance system for the Pakistani student community at Rutgers.

**Collegiate Powerlifter,** *Rutgers University*  **Sep 2023 — Present**
- Participated in and organized several powerlifting competitions, earning 6th place in the East Coast for the 67.5kg weight class (December 2024) at Collegiate Championships and qualified for Collegiate Nationals.

**Server/Key Employee ,** *PJ's Pancake House*  **Jun 2020 — Aug 2022**
- Earned key employee responsibilities, including opening and closing the restaurant, ensuring smooth operations, and managing cash handling procedures. Began as a busser/dishwasher and was promoted to server within 2 months.

## SKILLS

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| **Programming Languages** | Python, JavaScript, Java, C#, C/C++, SQL, HTML, CSS, XML, JSON, Microsoft Power Query, LaTeX |
| **Frameworks & Libraries** | React.js, Vue.js, Flask, Node.js, .NET, WordPress, OpenCV, YOLO, PyTorch, Tkinter, Ttkbootstrap |
| **Development Tools** | Git, Power BI, Power Automate, Power Apps, SharePoint, MS SQL Server, PostgreSQL, Kaggle |