

# Anh Phan

Laurel, MD, USA

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## PROFESSIONAL SUMMARY

Machine Learning Graduate with a strong foundation in machine learning, data engineering, and pipeline automation. Delivered real-time CNN-based systems and processing patient records across 100K+ clinical database records. Skilled in Python, TensorFlow, containerization, and building modular tools to support ML model training, evaluation, and deployment. Passionate about applying structured data pipelines and scalable infrastructure to robotics, ML, and CV applications.

## EDUCATION

### Bowie State University

*Bachelor's, Computer Science*

**Sep 2022 - May 2025**

*Bowie, MD*

- **GPA:** 3.4
- **Achievements:** Private Scholarship, Merit Scholarship
- **Coursework:** Artificial Intelligence, Software Development, Data Structures and Algorithms

## PROFESSIONAL EXPERIENCE

### Bowie State University

*Machine Learning Researcher*

**Jun 2024 - Present**

*Bowie, MD, USA*

- Created automation scripts to filter 140,000 patient records, retrieving 42,000 unique patient IDs, which streamlined data processing and improved efficiency
- Improved MRI image quality by using Gaussian smoothing and enhancing sigma value to increase image sharpness for reducing epochs in training CNN model
- Collaborated with peers and faculty advisors to test training efficiency and model deployment readiness, ensuring models were optimized for real-world application

### FPT USA

*Quality Assurance Tester*

**Jan 2022 - Sep 2022**

*Richardson, TX, USA*

- Created and executed 30+ test cases per sprint in a Linux environment for embedded set top box firmware to ensure reliability of the features
- Created regression and feature test plans based on new implement features to ensure set top box functionality, preventing UI and function bugs
- Used SSH, bash scripting, and log scraping to regularly audit set top box version, maintaining functionality and version integrity while there are no new implemented features

## PROJECTS & OUTSIDE EXPERIENCE

### CNN model building

*Bowie State University*

**Jun 2024 - Apr 2025**

*Bowie, MD*

- Engineered custom preprocessing AlzhiNet-based model using TensorFlow and scikit-learn; applied Gaussian smoothing and label parsing to increase input readability of the model
- Achieved 85% accuracy on validation sets through model tuning and efficient resource handling with 12 epochs on the training model

### Driver Eye Tracking Embedding System

**Apr 2025 - Present**

- Developed a real-time embedded vision system using CNNs to classify eye openness into 5 fatigue stages with 70% accuracy
- Deployed with voice alert TTS integration to increase driver awareness and hardware compatibility based on pre-trained ML model

### Wifi Auditing

**Apr 2025 - Present**

- Create a tool that captures available network with external Wi-Fi adapter to detect rough access point and identify weak password security on Kali Linux
- Installing supplement Wi-Fi adapter driver and update Linux Header file to set up the environment
- Identify WPA handshake unique value to crack the weak password using airodump-ng and deauthorization attack
- Perform deauthorization attack using specific WPA handshake value, capture the handshake packet and attempt to crack the password

## CERTIFICATIONS

- **CompTIA Security+:** Beginner Cyber Security Defense Team Cert

## SKILLS

- **Language:** Python, C++, SQL, Golang, Bash
- **MLOps & Tools:** scikit-learn, Pandas, TensorFlow, Grad-CAM, MySQL, Git, Github, AWS
- **Others:** Image Processing, Embedded Label Image, Data Augmentation, Data Extraction, Data Pipelines, CI/CD, TCP/IP, Model Training, Microcontrollers, URD, Compilers