# Nguyen Bui

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## EDUCATION

# University of Central Florida

Orlando, Florida

Bachelor of Science in Computer Science; GPA: N/A

Aug. 2025 - Present

# Florida International University

Miami, Florida

Bachelor of Science in Computer Science; GPA: 3.93

Aug. 2024 - April 2025

### EXPERIENCE

## Data Science and AI Intern

April 2025 – Present

RikkeiSoft

Remote

- Developed and deployed ML models for regression, classification, clustering, and MLP-based deep learning tasks using Scikit-learn and TensorFlow; optimized performance using gradient descent and backpropagation.
- Implemented data pipelines and preprocessing in Pandas/OpenCV and managed relational data using Microsoft SQL Server.
- Created business-oriented visualizations with Power BI to drive data-driven decision making.

# Software Development Intern - Game Development

Jun. 2024 – Aug. 2024

FPT Software

Ho Chi Minh City, Vietnam

- Designed and implemented game features in Unity with C#, including physics, post-processing, textures, lighting, input handling, collision, animations, and UI/UX elements.
- Optimized 2D/3D assets, object pooling, and shaders to enhance performance and reduce load times by 40%.

## **PROJECTS**

## ClearChat

PyTorch, Flask, HTML, CSS, JavaScript, Twitch/YouTube API, AWS EC2 August 2025 – Present \* Developed a transformer-based NLP model to detect hate speech and offensive language in real-time Twitch and YouTube live stream chats.

- \* Integrated platform APIs to automatically flag, delete messages, and mute or ban users, with optional manual moderation control.
- \* Implemented a frontend UI and a real-time monitoring dashboard to visualize flagged content for evaluation.
- \* Deployed the model on AWS EC2 to enable scalable, real-time chat moderation; developing a frontend webpage for public access.

#### Vision Transformers for Skin Cancer Prediction and Classification

PyTorch, TorchVision, FastAPI, SQLAlchemy, Pandas, NumPy
\* Developing a REST API for skin lesion classification using FastAPI, PyTorch, and SQLAlchemy, including model inference, preprocessing, and database storage.

- $\ast$  Implemented data augmentation and oversampling to address ISIC 2019's imbalanced dataset.
- \* Stored results in database tables to be used for efficient querying and downstream analysis.
- \* Optimized preprocessing, training and inference pipeline to run on GPU, enabling real-time prediction requests.

# Snake Game DQN and PPO Agents Reinforcement Learning

 $Python,\ PyGame,\ TensorFlow,\ NumPy$ \* Made a simple snake game with 10x10 playable grids and rounded edges using PyGame.

July 2025 – Present

- \* Implemented a Deep-Q Network (DQN) agent using TensorFlow to play and learn on the snake game using an epsilon-greedy exploration strategy
- \* Implemented a Proximal Policy Optimization (PPO) agent using TensorFlow to play and learn on the snake game with the actor and critic technique

## TECHNICAL SKILLS

Languages: Java, Python, C, C++, C#, SQL (MSS), MySQL, JavaScript

Frameworks: PyTorch, TensorFlow, Flask, Tailwind CSS

Developer Tools: Git, Kaggle, Hugging Face, VS Code, Conda, Jupyter Notebook, Unity, IntelliJ, HTML, CSS,

AWS, Azure

Libraries: Pandas, NumPy, Matplotlib, OpenCV, timm, Seaborn, TorchVision, React.js