

Amir Afiq Mohd Ariff

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EDUCATION

The Pennsylvania State University

College of Engineering

Bachelor of Science in Computer Science

Minor in Cybersecurity

University Park, PA

Anticipated Graduation: May 2026

GPA: 3.60/4.00

PROJECT EXPERIENCE

Blackjack Reinforcement Learning Agent

Nov 2025

- Built an AI agent capable of learning optimal Blackjack strategy through self-play and reinforcement learning.
- Reached a stable win rate of approximately 42 percent across large-scale simulations, matching optimal theoretical performance.

Formula One Data Management System

Nov 2025

- Designed and implemented a MySQL database modeling real world Formula One entities and their relationships across multiple tables.
- Built a Python backend and Streamlit frontend to populate, query, and visualize motorsport data from CSV files and public APIs.

Autonomous Pathfinder Robot

April 2025

- Designed and developed an Arduino-powered autonomous robot that follows a black path using color sensor and avoids obstacles with an ultrasonic sensor.
- Implemented recovery logic that enables the robot to reorient itself when off-track through progressive scanning and directional correction.

Intelligent Task Planner Web Application

March 2025

- Built a full-stack productivity web app that transforms user-entered tasks into structured, editable workflows using OpenAI's language model.
- Integrated Flask for backend API routes, deployed on Render, and connected to a Vercel-hosted frontend.

Scientific Calculator with GUI

April 2022

- Developed a GUI-based scientific calculator using Python and Tkinter, implementing fundamental and advanced mathematical operations.
- Designed an interactive graphical user interface (GUI) with categorized buttons for numbers, operations, factorial, exponentiation, and special constants.

WORK EXPERIENCE

Penn State Residential Dining

University Park, PA

Dining Hall Worker

Oct 2022 – May 2024

- Served an average of 500+ students per shift, maintaining a fast-paced yet welcoming dining environment.
- Implemented an organized system for tracking supplies, reducing waste by 15% and improving cost-effectiveness.

Penn State for Center of Performing Arts

University Park, PA

Front-of-House Event Staff

Aug 2024 – Present

- Assisted in seating and ticket verification for events with 1000+ attendees, ensuring a smooth check-in process.
- Addressed an average of 50+ guest inquiries per event, providing clear guidance and enhancing the audience's experience.

SKILLS

Languages: C, C++, Python, Java, Bash, JavaScript, HTML, CSS, SQL

Tools & Technologies: React, NodeJS, Flask, Git, Verilog, Wireshark, Vercel, Render, API, PostgreSQL

Spoken Languages: English, Malay