# **Todd Dong**

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#### **EDUCATION**

# Carnegie Mellon University

Aug. 2024 - May 2028

B.S. in Computer Science and concentration in Machine Learning

Pittsburgh, PA

**Relevant Courses:** Fundamentals of Programming and Computer Science, Principles of Imperative Computation, Mathematical Foundations for Computer Science,

Extracurriculars: CMU Varsity Swim and Dive, Volunteer swim lessons coach, Asian Students Association

## **TECHNICAL SKILLS**

Languages: C, Java, JavaScript, Python, HTML, CSS

Technologies: TensorFlow, NumPy, Matplotlib, scikitlearn, Django

Tools: VS Code, Processing, LaTeX, Jupyter, Git, ChatGPT

Certifications: Machine Learning (Stanford University, DeepLearning.AI), AWS Cloud Practitioner

#### **EXPERIENCE**

# University of Alaska Anchorage Artificial Intelligence Lab

Jun. 2025 - Aug. 2025

Machine Learning Intern

Anchorage, AK

- Implemented 4 GB Ollama Phi LLM for natural language processing to help hearing impaired individuals
- Architected Django-based user management system with secure authentication, registration, and login functionality
- Formed CSRF-protected backend endpoints to handle API requests and ensure secure data transmission

# CMU ScottyLabs | https://cmueats.com/

June 2025 - Present

SWE Developer

Remote / In Person

• Simplified user experience for **1,000** daily users and **3,600** weekly users enhancing appearance and efficiency

# **PROJECTS**

## Artificial Neural Network for Number Recognition | Python

Jul. 2025

- Built and trained a 3 layer neural network with TensorFlow on 60,000 MNIST image dataset to classify handwritten digits
- Applied image normalization, grayscale conversion, resizing, inversion, and center of mass alignment to increase classification accuracy on real world inputs to improve raw input accuracy from 92% to 98%
- Trained model using the Adam optimizer Achieving peak accuracy with 5 epochs in less than 30 seconds

## Full Stack AI Assisted Weather App | HTML, CSS, JavaScript

Jun. 2025

- Constructed a responsive app to show real time weather conditions to 200k+ cities from data from OpenWeather API
- Integrated GPT 3.5 natural language processing wrapper enabling users to ask conversational weather queries
- Auto detects users' location and preloads weather for 6 popular cities to cut down lookup time

## **AI Wordle Game** | Python

Dec. 2024

- Designed game logic, including user input, computer guessing algorithms, similar visual graphics output, and hints
- Organized code by utilizing object oriented programming and cohesive structure, tested on 50+ users
- Included 3 computer guessing algorithms ranging in efficiency and complexity, with hardest mode averaging 3.4 guesses

## Virtual Machine | C

Dec. 2024

- Engineered a functional stack based vm to execute custom bytecode, simulating execution and memory allocation
- Implemented **60**+ bytecode instructions including arithmetic, logic, memory allocation, function calls, arrays
- Optimized stack and frame handling using an algorithm that trimmed execution time by 37%