

# Todd Dong

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## EDUCATION

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### Carnegie Mellon University

Aug. 2024 - May 2028

Bachelor of Science 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 Student Association, ScottyLabs

## TECHNICAL SKILLS

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

**Technologies:** TensorFlow, NumPy, Matplotlib, scikit-learn, Django

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

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

## EXPERIENCE

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### University of Alaska Anchorage Artificial Intelligence Lab

Jun. 2025 - Aug. 2025

Machine Learning Intern

Anchorage, AK

- Led project as the sole software developer for a user friendly text assist application for individuals with hearing-impairment
- Implemented **4 GB Ollama Phi** LLM for natural language processing to decipher text, live audio, and audio files
- Architected Django-based user management system with secure authentication, registration, and login functionality
- Brainstormed with Professors to improve user experience, diversify features, and receive user feedback

### 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

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### 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
- Automatically detects and loads weather at users' location and for **6** popular cities to cut down lookup time

### AI Personal Workout Assistant | HTML, CSS, JavaScript

Jul. 2025

- Wrapped **Open AI's GPT-4 API** to generate tailored plans based on **7** prompts supporting **1 million+** unique workouts
- Utilized this self developed app to create and follow personalized gym and cardio routines during swim offseason, resulting in a personal weight loss of over **10** pounds
- Shared app with **8+** friends and family who achieved an average weight loss of **1.8** pounds through personalized plans

### 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%**