

DAVID LONG

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EDUCATION

The University of Tennessee, Knoxville
BS/MS in Computer Science (5-Year Accelerated Program)
Cumulative GPA: **3.92/4.00**

Knoxville, TN
Graduation: May 2027

- 109 completed credit hours, including Data Structures, Algorithms, Systems Programming, Operating Systems

WORK EXPERIENCE

Tickle College of Engineering, Knoxville, TN
Research Assistant

August 2023 – Present
May 2025 – Present

- Collaborated with Dr. Rachael Bevill Burns and peers in setting up the Social Tactile & Assistive Robotics and Intelligence Systems (STARI) lab
- Developed an application for the UT Wellness Mini-Grant to fund a user study on the clinical use of social robots
- Coordinated with peers on preserving the functionality of older Nao robots to use for experiments
- Reviewed literature extensively to understand the field of social robotics and draft possible research questions to explore

Teaching Assistant

August 2023 – Present

- Supported professors during lectures of 120+ students by answering questions on course content
- Elaborated on course content to help students understand engineering concepts on assignments
- Encouraged students to develop study habits/time management skills to ensure success in their classes
- Applied theoretical concepts to practical applications during lab sections of 30 students

PROJECTS

Galaxy Image Classifier

Machine Learning Engineer

- Developed a machine learning approach to categorizing galaxy images by their shape using the Galaxy10 Sloan Digital Sky Survey (SDSS) dataset for Intro to Machine Learning course
- Achieved 71% accuracy on high-dimensional data using a Random Forest model along with preprocessing (standardization, flattening) and postprocessing (image size reduction) steps

Course Schedule Generator Application

Web Developer

- Created a web-based application dedicated to generating potential college course schedules for computer science students as a group project for Software Engineering course
- Developed functional user interfaces, created/handled HTML form submissions, and designed website appearance using HTML, CSS, JavaScript, and Flask

Relevant Labs

- C++: Linked Lists, Hash Maps, Binary Search Trees, Mergesort, Quicksort, Dijkstra's, Edmond-Karps
- C: Vector API, Ring Buffer API, File Buffering, Thread Pools, Shell, Plugins

ACTIVITIES

Machine Learning Club
Association of Computer Machinery

January 2024 – Present
September 2022 – Present

TECHNICAL SKILLS

- Languages: Experienced in C++, C, Python; Familiar with HTML, CSS, JavaScript, C#, Rust, Haskell, Java
- Frameworks/Libraries: Experienced with Numpy, Pandas, Matplotlib, Scikit-Learn; Familiar with Flask

HONORS/AWARDS

- Dean's List, Fall 2022 – Present
- Scholarships: Volunteer Scholarship, HOPE, Dolphin Scholarship (Haines Society Scholar)