

Melissa Gaines

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EDUCATION

California State University, Long Beach (CSULB)

Expected: December 2023

Bachelor of Science, Computer Science

GPA: 3.35

- ★ **Relevant Course Experience:** Data Structures and Algorithms, Database Fundamentals, Machine Learning, Mobile App Development

SKILLS

- ★ Java; Python; C++; SQL; HTML; CSS; Unity; GIT; GitHub; ROS; Autoware; Microsoft 365

WORK EXPERIENCE

University of North Texas (UNT)

May 2021 – August 2021

Vehicle Autonomy Research Intern

Denton, TX

- ★ Worked in a team of 3 on a project focused on the advancement of vehicle autonomy for 10 weeks.
- ★ Proposed a combination of hardware additions (LiDAR and PACMod) and software applications (Robot Operating System (ROS) and Autoware) to establish a streamlined assembly of an autonomous vehicle.
- ★ Awarded the Best Paper Award for the group research paper that documented our overview.

Indiana University, Purdue University of Indianapolis (IUPUI)

May 2019 – August 2019

Computer Vision Research Intern

Indianapolis, IN

- ★ Worked in a team of 2 on a computer vision project for 10 weeks using TensorFlow, Linux, and Python.
- ★ Contributed to an open-source dataset to further the accuracy of pedestrian detection and prediction through analysis of 2D and 3D reconstruction of human poses from RGB images.

CSULB College of Engineering

August 2018 – May 2020

Outreach Office Assistant

Long Beach, CA

- ★ Packaged and distributed requested supplies to event coordinators; tracked, organized, and reported inventory of supplies, performed data entry, and completed any other duties as needed by the office.
- ★ Taught 40+ middle and high school students engineering principles, coding basic, and college prep topics.

PROJECTS

Restroom Services Android App

August 2022 – May 2023

- ★ Worked in a team of 4 in a 10-month senior design project that goes through the production and documentation steps of software development life cycle using Android Studio in Java, Google API, and Firebase to build an android application meant to assist users with restroom-related activities and needs.

Camouflaged Object Deep Learning Image Classifier

October 2022 – December 2022

- ★ Worked in a team of 3 to design and train 3 convolutional neural networks (CNN) using LeNet, AlexNet, and VGGNet models with the goal of successfully distinguishing camouflaged objects from an empty landscape or unconcealed objects. The models reached an accuracy rate ranging from 75 to 85 percent.

LEADERSHIP

Associated Engineering Student Body - President

September 2019 – August 2021

- ★ Oversaw 27 engineering organizations to ensure college- mandated guidelines and resolution of student complaints with college. Allocated over \$50,000 budget to various on-campus events with engineering organizations to enhance college experience of engineering students.

National Society of Black Engineers - Treasurer

January 2019 – May 2023

- ★ Managed receipts, reimbursements, fundraiser planning and communication with establishments. Organized grant proposals and presentations to successfully acquire over \$10,000 in funding for on-campus events.

INTERESTS

- ★ Photoshop, Crocheting; Roller skating