SIMON CARANDANG

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RELEVANT SKILLS

Project Management, Technical Writing, Designing CAD models, Research, Data Cleaning/Visualization/Analysis

Programming Languages: Python, C++, SQL, R

Libraries: Pandas, Matplotlib, SciKit

Software: Polyworks, OnShape, Inventor, Excel, Word, Power BI, Tableau, Docker, AWS, Jupyter, Anaconda, VS Code, Arduino, ROS, MySQL

EDUCATION

B.S. in Applied Physics

Texas Lutheran University | Seguin, Texas — Aug 2019 – Aug 2023

Object-Oriented Programming, Differential Equations, Applied Computational Physics I and II (Algorithms), Digital Electronics, Electricity and Magnetism, Thermal and Fluids Phys Engineering, Applied Optics, Mechanics, Quantum Mechanics

ALM in Data Science

Harvard University Extension School | Cambridge, Massachusetts — Jan 2024 - Current

Data Modeling, Foundations of Data Science and Engineering

EXPERIENCE

Production Associate

Tesla | Austin, TX — Nov 2023 – Jan 2024

- Trained other associates and technicians on quality checks, rework processes, and production processes.
- Assisted in improving steps in production, such as storage for finished parts and process flow.
- Acted as the quality gate, audited, and verified tolerances.
- Helped identify, assess, and acquire data on quality boundaries with Quality and Mechanical Design Engineering teams.
- Acquired and analyzed data on cycle times for different processes.
- Designed and fabricated parts to decrease cycle times and frequency of reworks.

Iris Flower Classification

Self-Motivated| Austin, TX — Jan 2023 – Jan 2023

- Developed a program that took a cleaned data set containing three classes of flowers and classified them based on four features: sepal length, sepal width, petal length, and petal width.
- The goal of the project was met using supervised learning with an algorithm called support vector machine (SVM) in Jupyter Notebook.

- The project was self-motivated to understand how to manage data, learn to visualize and interpret data sets.

Researcher (Autonomous Miniature Vehicle)
Texas Lutheran University | Seguin, TX Aug 2022 – Aug 2023

- Designed, fabricated, and programmed a miniature vehicle using scrap parts to autonomously navigate its environment.
- Lead Researcher
- Used Arduino, ROS, Jetson Nano, and OnShape
- 3D models were designed and fabricated using CAD software.
- A Kinect Sensor was used for object detection, tracking, 3D mapping, and localization.
- Successfully mapped the room using a 3D point cloud algorithm for the vehicle to navigate its environment.

Researcher (Smart Blinds)
Texas Lutheran University | Seguin, TX May 2021 – Jul 2021

- Designed, fabricated, and programmed a device that can be installed on traditional blinds to autonomously control it based on sensor input. This was designed for ease and quality of life improvements.
- Used Arduino, flow charts, OnShape and Fritz
- Device was able to open blinds when sunny, partially open when blinding, and closed when no sunlight was present.