**Koby Soden**

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**EDUCATION**

**University of San Diego Shiley Marcos School of Engineering**  Expected Graduation: Spring 2022

*BS/BA in General Engineering Degree (Concentration: Embedded Software) (Math Minor)*

* **Major GPA 3.73, Overall GPA 3.64**

**ENGINEERING PROJECTS AND EXPERIENCE**

**Senior Design |** Pirate HoleFall 2021-Present

* Oversaw and facilitated agile development for a team of three
* Facilitated and participated in the development and integration of a cloud-based system that identifies, and blocks pirated sports streams across the internet

**Solar Turbines |** *Engineering Intern* Summer 2021

* Independently designed, developed, and integrated a data archiving system into the turbine control system
* Participated in the Agile development process
* Created a final report and presented functionality and potential future features to 300 executives, leaders, managers, and employees

**I2C Driver |** *Individual* Fall 2021

* Implemented an I2C driver (C) from scratch that enabled a microprocessor to get readings from an accelerometer

**Digital Mood Ring |** *Individual*Fall 2021

* Utilized an Nvidia Jetson Nano, Docker and Tensorflow to create a real time mood detector
* Leveraged existing ML models to analyze webcam inputs and translate them into RGB LED outputs

**Autonomous Car |** *Team Member* Spring 2019

* Utilized IoT devices, C, Microprocessor (pi), and various sensors
* Features included obstacle avoidance, line-following, live camera feed, and mobile app/browser control

**SKILLS**

**Languages:** Python, C/C++, C#, Bash, HTML, CSS, x86-64

**Software:** Docker,Visual Studio, Git,Microsoft Office, Linux, Eclipse, NI Multisim

**Relevant Coursework:** Software Development,Embedded Systems Performance 1, 2, Advanced Algorithms, Operating Systems, Applied Math for Engineering 1, 2, Intro to Computer Systems (Advanced C/Assembly), Data Structures/Algorithms, Information Security, Circuits, Digital Hardware

**PROFESSIONAL EXPERIENCE**

**Shiley-Marcos School of Engineering |** *Teaching Assistant* Fall 2021

* Assisted engineering professors in developing answer keys, preparing lesson plans, and documenting software/hardware setup
* Courses covered: Embedded Software Development, Circuits, and Experimental Engineering

**College Works Painting |** Crew ChiefSummer 2019

* Responsible for estimating project cost, managing customer expectations, and ensuring budgets were met.
* Directed a team of 3 workers resulting in the completion of 20 projects ensuring all work was conducted safely and in a timely manner

**LEADERSHIP EXPERIENCE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**USD Football |** Fall 18- Spring 19

* Developed time management skills by balancing 20-hour training weeks and full 18-unit course loads