

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 Hole

Fall 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

AI Video Game Player | Individual

Spring 2022

- Developed a genetic algorithm that teaches neural networks how to play the game snake through trial and error

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 Chief

Summer 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