

# Tyler Lewis

tylewis@chapman.edu • fslfree.com • linkedin.com/in/tylew/

## EDUCATION

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Chapman University — Orange, CA, USA

**Masters in Electrical Engineering and Computer Science**

January 2023 - May 2025

Relevant Coursework: Control Systems; Deep Learning; Computer Vision; Technical Writing

**Bachelors in Computer Science**

August 2020 - May 2023

Coursework: Data Structures; Algorithm Analysis; Database Management; Digital Logic  
Linear Algebra; Calculus; Statistics; Web Engineering; Artificial Intelligence

**Business Administration Minor**

Coursework: Economics; Accounting; Real Estate; Marketing

## SKILLS

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**Programming Languages:** Proficient in Python, C/C++; Experience using Java, JavaScript, Go, R, Solidity, Move, Swift

**Programming Packages:** PyTorch, Tensorflow, Numpy, Pandas, Node.js, Simulink

**Tools and IDE:** Google Cloud, Git, Matlab, Docker, Confluence, Jira, Excel, Bash

## PROFESSIONAL EXPERIENCE

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**Hansji Venture Fund - Anaheim, CA**

May 2024 – Present

*Software & Database Engineer*

- Work on streamlining hotel revenue and operational management.
- Create and maintain a Google Cloud suite including database and asynchronous functionalities.
- Identify important data sources in regard to revenue management and collect within database.

**Continental Automotive - Carpinteria, CA**

May 2023 – Dec 2023

*LiDAR Software Engineering Intern*

- Develop unit-testing for real-time embedded LiDAR system, ensuring firmware stability.
- Create LiDAR hardware device testing environments, enabling in-depth evaluation of edge-case performance.
- Author drivers for control of laboratory devices, used for automating testing and validation processes.
- Maintain documentation and manage task workflows via Confluence, Git, and Jira.

**Electriq Power / IEEE**

June 2022 – November 2022

*IEEE Blockchain-Enabled Transactive Energy (BCTE) Application Developer*

- Develop "EnergyChain," a comprehensive full-stack application aimed at demonstrating the potential for peer-to-peer energy trading services within a decentralized network.
- Collaborate closely with the client and the IEEE project manager to ensure alignment with project specifications, leading to a refined and well-executed final product.

**Clean Coalition - Santa Barbara, CA**

Part time since June 2021

*Engineering Associate*

- Lead the development and implementation of the SMAP Calculator: a Python-based energy usage data analytics tool, replacing previously exacerbating tasks for the Clean Coalition team.
- Conduct multiple comprehensive analyses to identify optimal solar array configurations and energy storage solutions.
- Have gained extensive knowledge of off-grid energy systems in both residential and commercial settings.

## INVOLVEMENT AND LEADERSHIP

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**Southern California R Users Group Data Hackathon, UCI**

April 2024

Competition submission recognized with 'Best Analysis' award.

**Chapman Computer Science Club**

*Vice President*

January - May 2024

*Event Coordinator*

August 2022 - May 2023

**Chapman Tutoring & Learning Center**

*Computer Science Tutor*

August - December 2022

Provide supplementary support for data structures, object-oriented programming, math, etc.

**Smart-Contract Research Assistant**

May - August 2022

Chapman research project concerning viability of blockchain smart contracts for real-world application.

## PRESENTATIONS

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T. Lewis, S. Honikkman, J. Kempf “Energy Chain,” *IEEE Blockchain Transactive Energy Initiative*, Nov 9 2022

T. Lewis, et al. “Stock Exchange Rates in Relation to COVID-19,” *Chapman University Student Scholar Symposium*, May 2022

## KEY PROJECTS

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<b>Solar Microgrid Analysis Processor (SMAP)</b>	Dec 2023 – Aug 2024
<ul style="list-style-type: none"><li>• Suite of tools for cleaning, presenting, and analyzing energy meter data. Front+backend.</li><li>• SMAP is used to identify optimal solar and storage sizings for maximum economic and resilience benefits.</li><li>• My efforts streamlined time intensive tasks and are now actively used in the Clean Coalition’s processes.</li></ul>	
<b>Deep Learning Implementation for Image Colorization</b>	May 2024
<ul style="list-style-type: none"><li>• Implemented a neural-network pipeline for predicting colors in a greyscale image.</li><li>• Development approaches utilized both PyTorch and Tensorflow frameworks.</li></ul>	
<b>EnergyChain</b>	Oct 2022
<ul style="list-style-type: none"><li>• IEEE BCTE initiative was to seek solutions integrating blockchain and energy grid.</li><li>• My project goal was to enable private energy exchange between residential energy producers and consumers.</li><li>• Leveraged IBM Hyperledger Fabric to build a custom blockchain platform for a proof-of-concept.</li><li>• Sole software developer for the blockchain backend along with a front end interface.</li></ul>	
<b>Web-Canvas Play</b>	May 2022
<ul style="list-style-type: none"><li>• 100lewis.com; A creative web-development project playing with web canvas.</li></ul>	
<b>FPV drone</b>	April 2022
<ul style="list-style-type: none"><li>• Designed drone frame using CAD and fabricated on Markforged Carbon Fiber 3D printer.</li><li>• Implemented basic PID control system to maintain stationary leveling.</li></ul>	
<b>Digital Asset Price Analysis App</b>	Dec 2021
<ul style="list-style-type: none"><li>• Python interface to perform analytic queries in regard to price-analysis on digital NFT assets.</li></ul>	

## MISC.

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<b>Gap semester for continued pursuit at Continental Automotive</b>	Fall 2023
<b>Ocean Beauty Seafoods - Naknek, AK</b>	June 2020 – August 2020
<i>Quality Control Supervisor / Dock Operation Hand</i>	
<ul style="list-style-type: none"><li>• Oversee quality control procedures and contributed to various dock activities for Alaska salmon operation.</li><li>• The “full-stack” of manual labor jobs.</li></ul>	
<b>Lifelong hobbyist in both hardware and software</b>	
<b>High school varsity swimmer</b>	
<b>Recreational tennis player</b>	
<b>Paragliding P2 Certification</b>	