

Sonia Tampi | stampi@ucsd.edu | 425-785-3888
UCSD Math-Computer Science Major with 4+ years of solid Object Oriented Programming

EDUCATION

B.S Mathematics-Computer Science, University of California San Diego, San Diego, CA (09/2021-06/2024)

Relevant Coursework: Advanced Data Structures, Object Oriented Programming, Design and Analysis of Algorithms, Discrete Mathematics, Computer Organization and Systems, Cryptography, Data Science in Practice

WORK EXPERIENCE

Software Developer | TRITON QUANTITATIVE TRADING (09/2023-06/2024)

- Employed machine learning techniques and statistical analysis to write algorithms to perform trades
- Explored various emerging quantitative research methods to enhance trading strategies

STEM Tutor | PAPER (11/2021-02/2023)

- Taught K-12 math, science and computer science (Java and Python) one on one
- Developed and implemented personalized learning metrics to enhance comprehension
- Adapt to all different sorts of learning styles and skill levels using the Socratic questioning approach

Chief Operating Officer | TITAN ROBOTICS CLUB (09/2017-06/2021)

- Utilized Java to develop a robotics control system and AutoCAD to design mechanical parts and presented the final project to industry professionals
- Performed troubleshooting and diagnostics before and during competitions to maximize points earned
- Led full lifecycle operations for a team of 100+ with strong project management, communication and leadership skills
- Coordinated with mechanical design, software development and marketing teams to build high performance robots that won 1st place in the Interleague Championships as well as many design and control awards

PROJECTS: <https://github.com/stampi123>

Graph ADT Implementation | UCSD (06/2024) | C++

- Developed a custom graph abstract data type, incorporating methods for finding shortest paths, identifying connected components, and determining the smallest connecting threshold
- Optimized performance using a disjoint set data structure with path compression and union by size

Microplastics Research Project | UCSD (06/2024) | Python

- Analyzed large datasets to evaluate the impact of policies on oceanic microplastics using Python
- Performed data cleaning and statistical analyses on datasets with 20,000+ data points to derive insights

Beer Identification Machine Learning Model | UCSD (06/2024) | Python

- Developed a machine learning model to classify beer types based on their characteristics.
- Leveraged a publicly available Kaggle dataset to train and evaluate a Support Vector Machine (SVM) classifier, achieving ~75% accuracy in predicting the most common beer styles.

FOREX Trading Bot | Personal (08/2024) | Python

- Developed an automated trading bot using this strategy through the Oanda API and Python
- Analyzes historical market data to make informed buy or sell decisions, optimizing trade execution.

HONORS

IFPTE Dominick D. Critelli Jr. Scholarship Winner for the private sector (Boeing SPEEA):
https://www.speea.org/publications/files/Archive_Spotlite/Spotlite_2021/Spotlite_2021_08.pdf
University of California San Diego Trident Coastal Scholarship
COMPTIA Security+ Course Completion Certificate
University of Michigan Introduction to SQL Certificate

SKILLS

Languages: Java, Python, JavaScript, C, C++, R, SQL, MATLAB, Bash

Software: Tensorflow, Keras, scikit-learn, pandas, NumPy, Matplotlib, x86, ARM