

Sonia Tampi

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EDUCATION

University of California, San Diego

San Diego, CA

Bachelor of Science in Mathematics-Computer Science

June 2024

- **Relevant Coursework:** Advanced Data Structures, Design and Analysis of Algorithms, Discrete Mathematics, Computer Organization and Systems, Cryptography, Data Science in Practice, Object Oriented Programming
- **Honors/Certificates:** Boeing SPEEA Scholarship, Trident Coastal Scholar, University of Michigan Intro to SQL, Coursera AI Powered Chest Disease Detection, COMPTIA Security+ Course Completion, AWS Cloud Essentials

WORK EXPERIENCE

Triton Quantitative Trading

San Diego, California

Software Developer/Member

09/2023-06/2024

- Employed various machine learning techniques and statistical analysis methods in order to write algorithms
- Explored a variety of machine learning techniques and quantitative research methods to enhance trading strategies

PAPER

Remote

STEM Tutor

11/2021-02/2023

- Provided personalized one-on-one tutoring in K-12 math, science, and computer science to 50+ diverse students
- Developed and implemented personalized learning metrics to enhance comprehension and adapted to all different sorts of learning styles and skill levels using the Socratic questioning approach

Titan Robotics Club (TRC)

Bellevue, Washington

Chief Operating Officer/Software Developer

09/2017-06/2021

- Built robots for First Robotics Challenge (FRC) and First Tech Challenge (FTC) competitions including four 30x30x60 (inch) robots for FRC and six 18x18x18 (inch) robots for FTC throughout my time on the team
- Led full lifecycle operations for a team of 100+ winning 6 design and control awards overall
- Utilized Java to develop a robotics control system with regular troubleshooting and testing to maximize performance especially during autonomous driving routines and utilized AutoCAD to design mechanical parts

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

Microplastics Research Project

06/2024

- Utilized Python to research the effectiveness of plastic policies on mitigating the increase in oceanic microplastics
- Cleaned and organized 20,000+ data points and performed statistical tests and analyses to derive insights

FOREX Trading Bot

08/2024

- Developed an automated trading bot, through Oanda's API and using Python, that employs a signal generation function indicating whether to buy or sell and then places a market order using an order scheduler
- Analyzes historical market data to make informed buy or sell decisions, optimizing signals and trade execution

Conway's Game of Life

06/2024

- Optimized memory management and allocation of simulation grids and optimized buffer swapping for efficiency
- Enhanced user engagement by enabling grid initialization with custom patterns and real-time visualization

SKILLS

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

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