

Ethan Outangoun

ethanoutangoun@gmail.com | 510-366-9197 | ethanoutangoun.github.io | linkedin.com/in/ethanoutangoun

EDUCATION

California Polytechnic State University, San Luis Obispo

Bachelor of Science Degree in **Computer Science**

August 2020 – March 2024

GPA: 3.74

Relevant Coursework: *Software Engineering, Data Structures, Design and Analysis of Algorithms, Objected Oriented Programming and Design, Systems Programming, Computer Architecture, Intro to Database Systems*

WORK EXPERIENCE

Machine Learning Research Assistant – California Polytechnic State University

March 2023 - Present

- Enhanced machine learning algorithm to detect ethnicity based on facial features and names
- Collected and preprocessed large datasets, including cleaning and normalization of data

Software Engineer Intern – TGD Engineering, Union City

June 2022 – September 2022

- Automated multistep process to wash 55 gallon drums utilizing RS-Logix 500 software
- Conducted extensive testing and debugging of the system using a MicroLogix PLC
- Collaborated with other developers to design an interface for operators to monitor the system

IT Student Assistant – Cal Poly Corporation, San Luis Obispo

September – December 2021

TECHNICAL PROJECTS

GroupCart

September 2022 – December 2022

Languages & Tools Utilized: ReactJS, NodeJS, MongoDB

- Designed and developed a website where users can join/create grocery groups with other users
- Created a user friendly and responsive design for the website using NextUI and React Bootstrap
- Collaborated with a team utilizing Scrum methodology for successful project outcomes

PRG Predictor

Languages & Tools Utilized: Python, PyCrypto

January 2023

- Exploited the vulnerabilities of the Mersenne Twister PRG to get admin access in a simulated server
- Recreated the internal state of the MT19937 array to generate an admin password reset token
- Wrote extensive unit tests to ensure the reliability of decoding functions

Bitmap Image Decompression

March 2022

Languages & Tools Utilized: C++

- Developed a program for efficient bitmap file decompression
- Used parallel processing to increase efficiency of decompression, using four child processes to work on four quadrants of the image simultaneously
- Utilized system calls (e.g., fork, exec, signal, mutex) and properly managed resources of child processes

CAMPUS INVOLVEMENT/VOLUNTEER WORK

Thai Vietnamese Student Association, Social Chair

March 2021 – Present

- Volunteered 80 hours for community organizations throughout San Luis Obispo
- Coordinated events and managed communications with other clubs across California

SKILLS

Programming Languages: Python, Java, C++, JavaScript, Racket, Ladder Logic, HTML/CSS, C#

Familiar Technologies: React, SQL, Vim, Git, Figma, Unix, NumPy, Visual Studio Code