

BENJAMIN LIU

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EDUCATION

California Polytechnic State University, San Luis Obispo

Sep 2020 - Jun 2023

B.S. in Computer Science, GPA: 3.64/4.0, Dean's List

San Luis Obispo, CA

- Coursework: Data Structures, Systems Programming, Design & Analysis of Algorithms, Computer Organization, Operating Systems I + II, Network Security, Multivariable Calculus, Linear Algebra

WORK EXPERIENCE

Amazon Web Services

Apr 2022 – Present

Junior Systems Development Engineer

San Luis Obispo, CA

- Security Infrastructure team

California Polytechnic State University, San Luis Obispo

Jun 2021 – Aug 2021

Computer Science Research Assistant

San Luis Obispo, CA

- Designed, implemented, and tested text-based assistant to collect multiple software developer tools in one location in Node.js by processing REST API data
- Collaborated with research partner to support assistant on Discord and Slack messaging platforms

Boeing

Jun 2019 – Aug 2019

Engineering Intern

Huntington Beach, CA

- Researched systems testing and analysis for military underwater vehicles
- Designed extra small unmanned underwater vehicle (XSUUV) system with a team of interns
- Collaborated in subteam to design mothership that transports and deploys the XSUUV
- Created solution to remove sea urchins to prevent overeating of kelp forests

ACTIVITIES

Cal Poly Linux Users Group | President (2022 - 2023)

Sep 2020 – Present

- Attend weekly Linux discussion and help sessions
- Current project: configuring package mirror server for Arch Linux repositories

Cal Poly Security Education Club | Vice President (2022 - 2023)

Sep 2020 - Present

- Attend weekly technical talks on various cybersecurity concepts
- Compete in weekly capture the flag (CTF) competitions

Troy Cyber Defense | Linux instructor (2019 - 2020)

Aug 2016 – May 2020

- High school cybersecurity club with 335 students and 60 teams
- Taught Linux security to over 100 students each week
- Created presentations for teaching and virtual images for simulating competition scenarios
- Competed and prepared students for Air Force Association's Cyberpatriot competition

Various competitions

- CyberPatriot XII Semifinals 17th/6000+ teams (Jan 2020)
- CyberPatriot XII State Round 25th/6000+ teams (Nov 2019)
- picoCTF (hosted by Carnegie Mellon University) 60th/28000+ teams (Oct 2019)

PROJECTS

Threading Library for Lightweight Processes

Feb 2022

- Implement user-level threading library in C that shares a single thread's resources between multiple threads
- Maintains unique stacks to enable context switches between threads using a custom scheduler

dongman-bot | github.com/liubenjamin/dongman-bot

Oct 2020

- Developed Discord bot that notifies users of new anime episodes and manga chapters
- Written with discord.py API wrapper to parse RSS feeds and request data via AJAX API

SKILLS

Languages: Java, Python, C, C++, JavaScript, Bash

Technologies: Linux, Git, MongoDB, Express, React, Node.js