Christopher Yoeurng

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EDUCATION

California Polytechnic State University, San Luis Obispo — San Luis Obispo, CA
Bachelor of Science in **Computer Science** (3.9 GPA) — Expected **June 2026**

WORK EXPERIENCE

Amazon - Associate Experience — Bellevue, WA
Software Development Engineer Intern — Jun 2024 – Sep 2024

- Developed a microservice-based associate metrics page to gamify package stowing, resulting in a 17% productivity increase during the pilot phase by providing real-time feedback and historical insights on stow speed, volume, and scan efficiency.
- Built a notification service that alerts managers of station anomalies (ie. Training violations) through Slack webhooks, now sending 10,000+ daily notifications in production.
- Designed the UI of a web app for Android that uses speech recognition and an LLM to classify and report safety concerns in stations, focusing on accessibility and user experience.
- Optimized elastic search queries and connected internal services to increase the accuracy of our associate metric calculations, achieving a 253% speed increase and a 21% boost in accuracy on average.

Amazon Web Services, Cal Poly - Public Sector — San Luis Obispo, CA
Software Development Engineer Intern (Part-time) — Jan 2024 – Jun 2024

- Made an Alexa skill that alerts users of nearby fires using location data, the experimental Proactive Notifications API, and a new live fire localizer service (developed in parallel with CalFire's engineering team)
- Developed in partnership with the CA Department of Forestry and Fire Protection, leading to a $40k/yr migration to AWS.

Amazon - Manager Experience — Bellevue, WA
Software Development Engineer Intern — Jun 2023 – Sep 2023

- Created an instrumentation library and implemented server-side request logging in the routing layer between devices in the station and the microservices that power them, driving $220k/yr in reductions across 11 teams internationally.
- Wrote a script to find differences in shift plans by modeling them as graphs, traversing them in parallel, and comparing each node using various statistical and computational methods (e.g. implemented *Levenshtein string-edit distances*).
- Developed a proof-of-concept for an Alexa-enabled robot assistant that followed managers around and conveyed station health data through voice, pitched to our director, and featured in our yearly "Think Big" day.

PROJECTS

Cutbot.ai — Sep 2024 - Jan 2025

- Finds and simulates a good haircut for you by using a CNN to classify face shape, a DCNN to fit an Active Shape Model of the face, and procrustes analysis/affine transformation to merge your face with the recommended haircut.

Machine Learning & Network Security Research — Apr 2024 - Jun 2024

- Researched and wrote a paper on the effectiveness of a white box GAN-inspired spatiotemporal adversarial example attack on ML-based Network Intrusion Detection Systems under the guidance of D. Fang, Ph.D, nearly doubling spoof rate.

Drip by Drop - Fountain Finder — Sep 2023 - Feb 2024

- Created an app with a couple of friends to help users find, review, and navigate to the nearest drinking fountains in Rome.
- Developed the AWS backend and map screen, modeling fountains as S3 objects and overlaying them on a dynamic map.

EXTRACURRICULARS & CLUBS

Cal Poly Engineering Collective — Nov 2024 - Present
Noyce School Applied Computing Mentor

TECHNICAL SKILLS

Languages: Python, C, SQL, Java, JavaScript, ARM Assembly, TypeScript, HTML/CSS

Technical Skills: AWS Cloud(CDK, APIGW, DDB, AppConfig, IAM, Lambda, S3, Bedrock, Alexa Skills Kit), Object-Oriented Programming (OOP), React, React Native, Tensorflow Keras, ROS2, Pycryptodome, Inventor CAD, Git, ElasticSearch

Relevant Coursework: Data Structures, Algorithms, Object-Oriented Programming and Design, Networks, Parallel & Distributed Computing, Databases, ML in Cybersecurity, Computer Architecture, Operating Systems, Computer Systems, Artificial Intelligence, Computer Security, Software Engineering, Computer Vision, Vector Analysis, Statistical Methods