OLIVIA CHENG

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EDUCATION

Carnegie Mellon University • Pittsburgh, PA   Expected December 2026
Master of Science in Machine Learning
- **GRE:** 170/170 Verbal, 170/170 Math

University of Pennsylvania • Philadelphia, PA   August 2022
Bachelor of Arts • *Interdisciplinary Philosophy & Science* • *Minors: Computer Science, Mathematics*
- **GPA:** 4.0 / 4.0, *summa cum laude* with departmental honors
- Co-author of CSHL Biological Data Science 2020 Poster: "PhenoPLIER: Integrating TWAS With Gene Co-Expression Patterns" with Drs. Milton Pividori and Casey Greene

PROFESSIONAL EXPERIENCE

Daedalus, Inc. • Pittsburgh, PA   April 2024 – June 2025
Software Engineer
- Pioneered novel integrated stereo depth perception & object detection algorithm by implementing and adapting academic research paper with no available source code, including custom optimizations for real-time (15+ FPS) performance on NVIDIA Jetson platform
- Designed distributed computer vision validation system integrating open-source tools with custom Python libraries for comprehensive model evaluation
- Developed automated data curation pipeline using unsupervised learning techniques for ML model training
- Managed technical oversight of medical device firmware development for surgical systems, conducting code reviews and executing rigorous unit testing protocols for FDA-regulated software (Consistent high performance led to new contract with global medical device leader worth $400k+)
- Led software standup meeting and organize biweekly Learn & Share sessions for software team

Sarcos Robotics & Technology Corp. • Pittsburgh, PA   October 2023 – January 2024
Embedded Software Engineer I
- Transitioned prototype software and firmware to product-level for high-DOF underwater robotic manipulator

Meta Platforms, Inc. (formerly Facebook, Inc.) • New York, NY   August 2022 – August 2023
Software Engineer
- Deployed and optimized low-latency ML models for EMG/IMU signal processing in wearable non-invasive brain-computer interfaces as part of Augmented Reality division
- Architected cross-platform signal processing library for multiple MCU/DSP targets using Python & C++

Software Engineer Intern   January 2021 – April 2021
- Built cross-platform mobile UI components for Facebook Marketplace, designed for accessibility

Chan Zuckerberg Initiative • Redwood City, CA – Remote   May 2021 – August 2021
Software Engineer Intern
- Built proof of concept for differential data privacy system in Python to protect sensitive user data

SKILLS

Machine Learning & Computer Vision: PyTorch, OpenCV, MMDetection, YOLO, FiftyOne, stereo vision, depth estimation, object detection, real-time inference optimization, unsupervised learning, automated data curation
Programming & Software Engineering: Python, C++, C, Java, embedded systems, NVIDIA Jetson, mobile app development (React Native), performance optimization, Git, CI/CD, unit testing, code review, Linux, Docker
Data Science & MLOps: Pandas, NumPy, scikit-learn, Jupyter, model validation pipelines, experiment tracking, ML model evaluation, Weights & Biases
Mathematical Foundations: linear algebra, probability theory, 3D geometry, graph theory
Open Source: PyTorch contributor, OpenCV contributor, FiftyOne contributor, Hugging Face Spaces

PROFESSIONAL DEVELOPMENT

Hugging Face   June 2025
- AI Agents Fundamentals Certificate
- LLM Course Unit 3: Fine-tuning Language Models Certificate
- LLM Course Unit 1: Fundamentals of LLMs Certificate