# **Peter Wang**

□ pjwang2324@berkeley.edu | \(\cup(909)-551-5416 \) | \(\overline{\overline

#### **EDUCATION**

# University of California, Berkeley (GPA: 3.5/4.0)

May, 2026

B.S. in Computer Science

- Honors: UC Berkeley Leadership Scholar (\$2000 annual scholarship), Math & Physical Sciences Scholar
- **Relevant Coursework:** CPU Design, Microelectronic Devices and Circuits, Designing Info. Devices and Systems, Machine Learning, Discrete Mathematics, Probability & Random Processes, API Development

## **SKILLS**

- Languages & Frameworks: Java, Python, C/C++, RISC-V, CUDA, Go, SQL, Matlab, JavaScript, Node.js, JUnit
- Libraries: PyTorch, pandas, NumPy, SciPy, Matplotlib, Seaborn, Scikit-learn, Pydantic, SQLAlchemy
- Hardware: Analog Circuit Design, PCB Design, Precision Hand-Soldering, Code Coverage, Design Verification

#### **EXPERIENCE**

# Computer Science Peer Advisor | UC Berkeley - College of Engineering

Aug. 2024 - Present

• First official hire as a peer advisor for EECS department (eecs.berkeley.edu/undergrads/cs/advising/#peer)

# AI/ML Intern | Honda Research Institute

*Jan.* 2024 - *Present* 

- Applied L2 Ridge Regression to address multicollinearity and overfitting in telematics data.
- Utilized K-Means clustering to analyze driving patterns, reducing urban congestion.
- Conducted exploratory data analysis with NumPy and SciPy, identifying key energy inefficiencies.

### **Software Engineer Intern | Accenture**

Jun. 2023 - Jul. 2023

- Implemented cloud computing solutions on Microsoft Azure to efficiently scale machine learning models using Azure Kubernetes Service (AKS) and Azure Machine Learning
- Developed and deployed automation scripts to streamline workflows.

## **Machine Learning Engineer | IEEE**

Aug. 2020 - Jun. 2022

- Published research paper "Finger-Vein Recognition using a NASNet with a Cutout" in 2021 ISPACS, IEEE.
- Designed Python ML models based on the NAS framework (Gradient-based Optimization).
- Utilized CUDA for parallelized training, implementing custom CUDA kernels to accelerate convolutional layers and matrix multiplications, reducing model training time by 36%

## Software Engineer Intern | Blockchain Accelerator

Jun. 2020 - Aug. 2022

- Developed scalable RESTful APIs with Node.js to enhance data processing workflow.
- Integrated MongoDB for financial data storage and retrieval, improving system performance.

#### **HARDWARE + NLP**

## **CPU Design & Implementation**

- Designed a RISC-V CPU in Logisim with an ALU, register files, and immediate generator supporting multiple instruction types.
- Utilized Pulse-Width Modulation (PWM) and differential signaling to enhance CPU communication.

#### **MOSFET Common-Source Amplifier Design**

- Analyzed MOSFET characteristics and biasing to achieve optimal amplification in the saturation region.
- Simulated the circuit using LTSpice to determine voltage gain, frequency response, and bandwidth.

#### **Berkeley Formula Racing**

- Integrated MOSFETs into power management circuits for improved power efficiency and system reliability
- Designed a combined accelerometer PCB for multi-axis acceleration data measurement.

#### **Merger Arbitrage: Opportunity Analysis**

- Built a custom vFinance API module for swift M&A data access, reducing data retrieval time by 23%.
- Optimized Monte Carlo simulation with NumPy/SciPy, projecting \$1M to \$1.2M with 95% confidence interval.

## **Natural Language Processing Project**

- Employed a fine-tuned version of the DistilBERT model to analyze the sentiment of Bloomberg news articles.
- Leveraged NLP to analyze 1+TB of financial news, increasing prediction accuracy by 15.2%.