

# Peter Wang

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## 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

**Data Science Researcher | 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.

**Technology 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**

- Developed a RISC-V CPU in Logisim with an ALU, register files, and immediate generator supporting multiple instruction types.
- Tested CPU functionality by writing and running custom RISC-V assembly tests

**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 yFinance 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%.