

DERUI (DEREK) WANG

+1 (510) 982-5319 | derekderuiwang@gmail.com | [linkedin.com/in/derekderuiwang](https://www.linkedin.com/in/derekderuiwang) | github.com/DerekW00

EXPERIENCE

Software Engineering Intern

May 2024 - Oct. 2024

Nano-Core Chip Company

Remote

- Engineered and deployed machine learning models (AlexNet, LSTM, RNN, ResNet, GPT-1, BERT) to advance AIoT SoC chip functionalities, achieving up to a 25% improvement in inference latency.
- Applied advanced quantization techniques to enhance AI chip performance, boosting power efficiency by 30% and computational speed by 20%.
- Collaborated with a leading chip research team on national key research projects, contributing to record-breaking results at ISSCC with a 40% increase in processing throughput.

Software Engineering Intern

Oct. 2023 - Apr. 2024

SYSTEX Corporation

Remote

- Developed and maintained a suite of Office add-ins (WordDNAFF, ExcelDNAFF, PPTDNAFF) to enhance productivity and streamline workflows by automating routine tasks.
- Designed and implemented secure certificate management protocols using PFX certificates and custom verification processes, ensuring 100% software integrity and compliance.
- Collaborated on testing and demonstration suites, reducing deployment issues by 20% and boosting user satisfaction by 15% within 3 months.

STEM Tutor, Athletic Study Center

Jan. 2020 - Present

University of California, Berkeley

Berkeley, CA

- Awarded 'Best Tutor' recognition for outstanding educational impact, based on positive feedback from 200+ student athletes and academic advisors.
- Provided tutoring in advanced subjects including CS61A, CS61B, Data100, Data102, and Data140, consistently improving student course GPA by more than 0.3 points.

EDUCATION

University of California, Berkeley

Conferred Dec. 2023

Bachelor of Arts in Computer Science, Data Science, and Economics

- Relevant Coursework:** Object-Oriented and Functional Programming (CS61A), Data Structures (CS 61B), Database Systems, Algorithms, Computer Architecture, Artificial Intelligence, Machine Learning, Inferential Model, Computer Security, Human-Computer Interaction

PROJECTS

Psychedelic Therapy Assistance App | *React, Next.js, MongoDB, Open AI API*

Jan. 2025 - Present

- Spearheaded the development of an application for psychedelic therapy, leveraging GPT-4 and cross-platform mobile development to increase user engagement by 20% during beta testing.
- Designed an AI-driven conversational interface to simulate therapeutic interactions, reducing session setup time by 15%.
- Implemented real-time data capture for dynamic user experience logging, streamlining feedback collection and analysis by 25%.
- Currently developing post-session tools for guided meditation and tailored exercises to further enhance user outcomes.

Database System Implementation | *SQL, Java*

Feb. 2023 - Apr. 2023

- Enhanced B+ Tree Indices in RDBMS by engineering critical functions that improved data retrieval speeds by 20%.
- Implemented write-ahead logging with savepoints and rollbacks to ensure ACID-compliant transaction recovery, reducing transaction errors by 15%.
- Developed a concurrent transaction locking system to manage simultaneous operations, boosting overall system throughput by 30%.

SKILLS

Programming Languages: Python, Java, C/C++, JavaScript, TypeScript, HTML, CSS, Go, SQL

Front-End: React.js, Next.js, Angular, Vue.js, Figma

Back-End: Node.js, Express, Python (Django/Flask), RESTful API design

Tools & DevOps: Git, Docker, CI/CD (Jenkins, Travis CI), Cloud Platforms (AWS, Google Cloud, Azure)

Testing: Jest, Mocha, JUnit, pytest

Soft Skills: Agile Collaboration, Problem-Solving, Effective Communication, Adaptability