Peter K. Nguyen

Hayward, California | (510) 331-2910 | nguyenpeter@berkeley.edu | Portfolio/GitHub

EDUCATION

University of California, Berkeley **Berkeley, CA**

- ***Data Science B.A.*** *— Major GPA: 3.447* *Graduation Date: Aug 2024*
  - *Domain Emphasis: Cognition*

SKILLS & INTERESTS

Languages & Systems: Python, Java, C, NumPy, pandas, Matplotlib, Seaborn, Plotly, JuypterLab, Git, scikit-learn

Interests: Neural Networks, Large Language Models, Reinforcement Learning, Cognitive Modeling, Sports Analytics

WORK EXPERIENCE

UC Berkeley EECS Department **Berkeley, CA**

CS61C Academic Intern *Sep 2023 - Jan 2024*

- Collaborated with course staff on assisting students one-on-one with their project design, lab assignments, and homework questions.
- Supported TA-hosted office hours by independently resolving student-submitted support tickets and debugging students' code.
- Tutored students on course-relevant machine structure topics including: number representation, C programming, RISC-V programming, memory management, calling convention, CPU design, combinatorial logic, and parallelism techniques.

ACADEMIC PROJECTS

Introduction to Artificial Intelligence (CS188) **Berkeley, CA**

*AI Pacman Solving Agent Projects (**Python**)* *Jun 2024 - Aug 2024*

- Completed a series of 5 programming projects that evaluate different Pacman game states and finds an optimized solution for the setup using various AI techniques.
- Developed a strong command of foundational artificial intelligence concepts including: graph search algorithms, multi-agent minimax and expectimax algorithms, Bayes Net probabilistic inference, and reinforcement learning.

Data, Inference, & Decisions (Data C102) **Berkeley, CA**

NHL Data Analysis Project *Apr 2024 - May 2024*

- Tabulated NHL data using **NumPy**, **pandas**, and **matplotlib** to perform statistical analysis of each team's power play killing probabilities and to identify which teams were likely to commit significantly higher penalties.
- Delivered an academically-formatted written report outlining the research direction, exploratory analysis, statistical modeling performed on the dataset, and interpretation of the results.

Great Ideas of Computer Architecture (CS61C) **Berkeley, CA**

RISC-V CPU (Logisim) *Jul 2023 - Aug 2023*

- Designed a 2-stage pipelined CPU using Logisim that is capable of processing and executing RISC-V instructions.
- Familiarized with concepts in combinatorial logic, logic gates, circuit design, and pipelining optimization.

CS61Classify (RISC-V) *Jun 2023 - Jul 2023*

- Wrote RISC-V assembly code to classify handwritten digits with a simple machine learning algorithm.
- Achieved proficiency with programming in the RISC-V instruction set, as well as familiarity with calling convention and memory layout.

Transforming Tech: Issues in STEM (NWMEDIA 151AC) **Berkeley, CA**

Online Radicalization Research Presentation *Jul 2023 - Aug 2023*

- Performed group research on the various ways algorithmic content dissemination enables online radicalization and on the real-world consequences of social media algorithms on young men and women.
- Presented an informational slidedeck advocating for stronger governmental regulation of online content.

RELEVANT COURSEWORK

- **Data Science:** *Probability for Data Science* (DATA C140); *Data, Inference, & Decisions* (DATA C102); *Principles & Techniques for Data Science* (DATA C100); *Foundations of Data Science* (DATA C8)
- **Computer Science:** *Data Structures* (CS61B); *Machine Structures* (CS61C); *Discrete Math & Probability Theory* (CS70); *Efficient Algorithms & Intractable Problems* (CS170); *Computer Security* (CS161); *Artificial Intelligence* (CS188); *Computational Models of Cognition* (COGSCI C131)