

Aaron Pilapil

alpilapil@ucdavis.edu | [linkedin.com/in/aaron-pilapil](https://www.linkedin.com/in/aaron-pilapil) | github.com/ALPilapil

EDUCATION

University of California, Davis

Graduating in Spring 2026

Bachelor of Science (B.S) Cognitive Science (computational emphasis), Computer Science

Coursework: Data Structures and Algorithms, Computational Linguistics, Research Methods in Psychology

TECHNICAL SKILLS

Languages: Python, C++, C, R, MATLAB, Java

Tools: Pandas, Numpy, PyTorch, Tensorflow, Valgrind, MNE, Git, Github, Sklearn, Seaborn, Matplotlib

PROFESSIONAL EXPERIENCE

Research Assistant

Davis, CA

Logic, Language, and Learning Lab

September 2024 – Present

- Visualize, process, and analyze data from a large database of utterances between children and their parents using R and Python.
- Perform linguistic analysis based on phoneme length, complexity, concreteness etc.
- Co-author a research paper testing the effectiveness of a language model to replicate child grammar based on training data from parents speaking to children.

Research Assistant

Davis, CA

Speech Neuroengineering and Cybernetics Lab

March 2025 – Present

- Develop a novel machine learning model and method to denoise EEG data from participants with cochlear implants.
- Report these findings in a published research paper.

Research Assistant

Davis, CA

Cognition in Context Lab

January 2025 – June 2025

- Working with parents and children, helping to design research studies, running experiments, engaging in community outreach, conducting literature reviews.

Research Assistant

Washington, D.C.

Political Violence Lab

August 2024 – September 2024

- Co-Author a research paper that analyzed trends in global migration patterns, using R, against trends in global shipping lanes and weather patterns.
- Automated data cleanup through Python to reduce data cleanup time.

PROJECTS

Project Manager

Davis, CA

Neurotech

September 2024 – Present

- Lead a team to create a brain computer interface that detects semantic meaning activation in response to orthographic stimuli in real time for a user's desired language.
- Test over 1,000 combinations of preprocessing parameters on EEG data using the OpenBCI 8 electrode setup to find the ideal model accuracy out of SVM, kNN, Neural Nets, LDA, and RandomForest models.
- Implement the trained ML model in real time with Brainflow.

Project Developer

Davis, CA

AI Student Collective

January 2025 – March 2025

- Won a case competition with a program a machine learning model that identifies early onset of neurodegenerative diseases such as Alzheimer's disease using PyTorch while also allowing for feedback based on those results.