David Yang

davidmyang@berkeley.edu | davidmyang.github.io | linkedin.com/in/davidmyang | github.com/davidmyang

Education

University of California, Berkeley Aug 2021 – May 2025
B.A. in Computer Science & B.A. in Linguistics; GPA: 3.9/4.0 Berkeley, CA

- **Relevant Coursework:** Language and Thought, Data Structures, Efficient Algorithms, Data Science, Quantitative Linguistics, Syntax, Phonetics, Phonology, Historical Linguistics, Discrete Math and Probability

Research Experience

Language and Cognition Lab Sep 2024 – Present
Advisor: Terry Regier (UC Berkeley) Berkeley, CA

- Developed language-specific grammars for a diverse set of natural and optimal artificial languages.
- Implemented an evolutionary algorithm to examine how constraints on number grammars shape order in artificial numeral systems.
- Tested how natural languages optimize the sum of lexicon size and morphosyntactic complexity, as well as the role of the prior distribution.

Information Sciences Institute Jun 2024 - Aug 2024
Advisor: Alex Spangher (USC) Los Angeles, CA

- Designed and implemented scripts on an HPC cluster to analyze newsworthiness factors in city council meetings.
- Leveraged vLLM and topicGPT to extract and classify multi-level concepts in city policies, enabling automated policy categorization.
- Conducted statistical analysis using logistic regression models to evaluate predictive factors of newsworthiness.

Ti Lab Mar 2022 - Present
Advisor: Samson Petrosyan & Grigory Tikhmirov (UC Berkeley) Berkeley, CA

- Building a novel VR application that enables users to design and simulate custom DNA nanostructures.
- Implementing advanced features such as multi-component structures and layered abstraction views.

Professional Experience

Veeva Systems May 2024 - Aug 2024
Software Engineering Intern Pleasanton, CA

- Developed client-side React components for object controls to enhance usability for developers utilizing UISDK.
- Resolved UI defects and implemented unit tests for UISDK to improve stability and reliability.

Optum Jun 2022 - Aug 2022
Software Engineering Intern Eden Prairie, MI

- Developed an ML model using PySpark ML to predict pharmaceutical drug prices with 92% accuracy.
- Built a React-based frontend for an improved user experience and integrated Spring Boot for efficient backend API handling.

Teaching Experience

CS61B: Data Structures Jan 2023 - Present
Teaching Assistant, Infrastructure Lead (5 semesters) Berkeley, CA

- Taught weekly discussion sections for 30+ students, covering implementation and theory of data structures.
- Developed course tools as part of the internal infrastructure team, improving automated grading, office hours tool, and student extensions.

Skills & Activities

Programming Languages: Python, R, Java, C#, C, HTML/CSS, SQL, RISC-V, x86, OCaml
Tools: Jupyter Notebook, Git, Pandas, NumPy, Praat, Unity, SBATCH, TensorFlow, React.js
Interests: Rockclimbing, Running, Languages, NYT word games, Piano, Saxophone