MAX VINK

Berkeley, CA | max.vink@berkeley.edu | 805-668-9754 | GitHub | LinkedIn | Portfolio

EDUCATION

University of California, Berkeley

Bachelor of Arts in Computer Science and Political Science, Graduating May 2025 | Major GPAs: CS 4.0/4, PS 3.8/4

- **Relevant Coursework**: Data Structures, Game Theory, Discrete Mathematics and Probability Theory, Empirical Analysis and Quantitative Methods, Introduction to Computer Programs
- **Extracurriculars:** Political Computer Science @ Berkeley (Developer), Telegraph for People (Director of Politics, Founding Member), Cal Cycling (Executive Board), Cal Triathlon, SDG Undergraduate Research Group (Researcher)

WORK / LEADERSHIP EXPERIENCE

Grid Protection Alliance — **Chattanooga, TN**

Intern — *(November 2022 – Current)*

- Wrote company-wide end-user software documentation on real-time synchrophasor data systems
- Published a wiki based on Markdown and HTML files generated from the documentation

GamePlay, Inc. — **San Francisco, CA**

SDE Intern — *(October 2022 – November 2022)*

- Harvested Google Earth data to develop a Postgres database to "Airbnb" municipal facilities for youth sports leagues
- Analyzed search results and modified inputted data to ensure outputs accurately reflect database results

Political Computer Science @ Berkeley — **Berkeley, CA**

Data Scientist and Researcher — *(August 2022 – Current)*

- Created a recidivism model without leveraging race data against parolees, ensuring just risk prediction behavior
- Analyzed with NumPy and Pandas and fed 26,000 entries, this model escapes historical data biases of over-policing & over-sentencing, saving marginalized persons thousands of dollars
- Achieved a 67% accuracy rate with a neural net configuration, above the industry standard

Telegraph for People — **Berkeley, CA**

Director of Political Strategy and Outreach — *(October 2021 – June 2022)*

- Mobilized & coordinated efforts to (1) transform Southside with bike, bus, & pedestrian-centric infrastructure with a litany of multimillion-dollar construction projects via city council, (2) organize the largest march in Berkeley in 5 years

PROJECTS

Google NGrams Viewer

- Devised a browser-based tool for exploring the history of words, their usage, their synsets, and their hyponyms
- Harvested history's 80k most popular words into HashMap and Graph-based packages in back-end with Java
- Generated front-end word usage graphs with HTML and JavaScript to visualize compiled datasets

Amped Discord Music Bot

- Optimized Discord user experience by building a bot that replicates the features of Rhythm plugins (deprecated)
- Allows the download and play of YouTube audio files directly inside Discord voice, bypassing the Spotify ad alternative
- Utilized Python for the back-end to call the Discord developer API for front-end interface

2D Worldbuilding Engine

- Engineered an 2D tile-based world engine that generates a DFS-based interactive labyrinth world in Java
- Programmed features include pseudorandom seed generation, persistence via save files, dynamic lighting, scoring, line-of-sight vision, and a dynamic HUD

Scheme Interpreter

- Designed an interpreter that parses, tokenizes, and evaluates user-generated Scheme code with Python
- Implemented tail-recursion optimization within Python by iteratively calling evaluation and application methods

SKILLS

- **Languages:** Python, Java, Scheme, SQL, Postgres, R, MATLAB, HTML, CSS, JavaScript, Spanish
- **Technologies:** Git, React.js, Heroku, MongoDB, Pandas, NumPy, Flutter