# Abraham Kwok

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## EDUCATION

**University of California, Berkeley**                                                       **Expected May 2025**
*B.A. in Computer Science | B.A. in Data Science (Concentration in Cognition)*           *3.8/4.0*
- Relevant Coursework: Computer Architecture, Computer Security, Data Mining, Data Structures, Database Systems, Discrete Math, Efficient Algorithms and Intractable Problems, Linear Algebra, Principles of Data Science, Machine Learning, Probability Theory

## TECHNICAL SKILLS

**Languages:** Python, Java, Golang, SQL, C, HTML/CSS, Javascript, PHP, Regex
**Technologies:** Kubernetes, Terraform, Prometheus, Grafana, Splunk, OpenLens, Node.js, Redis, Postman, REST API
**Libraries:** Pandas, NumPy, Seaborn, Scikit-Learn, Matplotlib, Imodels, SciPy, SymPy

## EXPERIENCE

**Fastly**                                                     **May 2024 - August 2024**
*Software Engineering Intern*                                       *San Francisco, CA*
- Implemented an end-to-end service to verify an Observability feature independently of sampling in the pipeline
- Developed a traffic generator capable of synthetically sending over 120 requests per second to a CDN service
- Configured a Kubernetes job to create over 800 metrics per hour and trigger SLO alerts for threshold violations

**Proofpoint**                                               **January 2024 - May 2024**
*Machine Learning Researcher*                                    *Berkeley, CA*
- Enhanced 2 Cybersecurity infrastructures with Logistic Regression and Tree GAM, improving data detection
- Generated 10+ data visualizations to communicate relationships between 100+ features to the data team
- Modeled 20+ interpretable Machine Learning rules in the algorithm, freeing up analysts to contextualize alerts

**Cerevox**                                                   **June 2023 - August 2023**
*Software Engineering Intern*                                        *Berkeley, CA*
- Boosted user accessibility by 50% through a seed generation service, tracking and monitoring 500+ requests.
- Synthesized a custom, 300+ line REST API to ingest data files to convert them into a manageable format
- Engineered 30+ unit and integration tests, ensuring reliability through achieving 95% test coverage

**UC Berkeley Division of Computing, Data Science, and Society**           **August 2022 - May 2023**
*Data Science Academic Intern*                                     *Berkeley, CA*
- Instructed Computer Science, Probability, and Machine Learning concepts to 30+ students for 2 semesters
- Organized debugging and concept sessions in weekly labs, boosting assignment submission rates to 95%
- Resolved 300+ student coding and probability inquiries, resulting in an A- average in my lab section

## PROJECTS

**Build Your Own World** | *Java*
- Designed an immersive experience entailing strategic item collection to navigate a dark, maze environment
- Devised an algorithm to randomize hallway and room generation, enhancing the complexity of the environment
- Crafted a Pokemon-themed user interface through the implementation of the StdDraw library

**NGordNet** | *Java, RegEx*
- Created a browser-based tool for dynamic analysis of the historical usage of words in the English language
- Increased query speed by 90% by applying Depth First Search to process over 40,000 word hyponyms
- Enabled users to dynamically explore word usage trends across time by displaying time series metrics

**Workout Tracker** | *HTML, CSS, Javascript, PHP, MySQL*
- Developed a workout tracker website that records exercises into an SQL server through PHP post requests
- Crafted a user-friendly interface with HTML and CSS, enhancing the overall device experience by 90%
- Implemented dynamic data linear graphs components to monitor workout progress over time through CanvasJS