# Kevin Moy

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## Education

**UNIVERSITY OF CALIFORNIA, BERKELEY** **(AUG 2018-PRESENT)**

**GPA:** 3.5/4.0

Double Major: B.A., Computer Science + Data Science (Computational Biology Domain Emphasis)
Expected Graduation: May 2021

## Relevant Coursework

DS100: Principles of Data Science (Python, XML); CS 61B: Data Structures (Java), CSW186: Database Systems (Java+SQL); CS61C: Machine Architecture (C+Python); CS170 Efficient Algorithms and Intractable Problems; Data 144: Data Mining and Analytics; CS 176: Computational Biology; CS 169A: Software Engineering

## Skills

- Programming expertise (by proficiency): Python, Java, C, C++, C#, SQL, Golang, Javascript, HTML5/CSS, OpenMP, Spark, Hadoop
- Software Design Patterns, Software Security
- Linux OS Manipulation, Bash Shell Scripting
- Excel, Data Modeling + Cleaning + Analysis, Data structures
- Test-Driven Development: creation of comprehensive unit, integration tests

## Work Experience

**Undergraduate Researcher** **AUG 2020 – PRESENT**

- Conducted research in correlation and the K-nearest neighbors algorithm under the supervision of Prof. Joshua Hug (UC Berkeley), specifically to find reasoning behind AQI report discrepancies in times of wildfire and high wood smoke
- Within a one-week span, learned and utilized the CSV, OS, and BeautifulSoup Python libraries to web-scrape and populate PM2.5 values of various air quality sensors around California.

**CS61A Course Tutor and Mentor, UC Berkeley EECS** **AUGUST 2019 – AUG 2020**

- Prepared and ran weekly sections reinforcing computer programming concepts in Python (e.g. generator functions, trees, object-oriented-programming) with 5 students in a personalized, meeting-like setting
- Contributed to development and testing of Berkeley CS's standard online exam tool testing format (exam.cs61a.org), specifically through formatting and creation of midterm-generating markdown files

**CSC100 Teaching Assistant, UC Berkeley Data Science** **MAY 2020 – AUG 2020**

- Prepared and taught biweekly discussion sections of 30+ students to reinforce fundamental data science concepts, e.g. modeling, regression, principal component analysis, XML/web scraping, etc
- Collaborated with other undergraduate instructors to design and audit curriculum material
- Extensive experience with debugging student code and deducing conceptual flaws in office hours, discussion sections, and lab sections

**Full Stack Developer Intern, Next Island Virtual Reality** **JAN – AUG 2017**

- Improved project code build process time by 10% by modifying existing Bash shell scripts.
- Contributed to UI development using Unity Engine and C#, mainly through fixing app bugs.

## Projects

**ChessDB-Remastered (Java), Lead Developer**

- Utilized application and GUI programming knowledge via JavaFX libraries as well as chess expertise to create a chess-playing application coupled with a database for storing chess games

**KAWHI-BOT (Python), Lead Developer**

- Coded a specialized basketball-chatbot program which utilized randomized rule-matching and machine-learning principles to output human-like responses to a series of basketball-related questions.

**MOOCBase (Java), Lead Developer**

- Utilized knowledge of relational databases and optimization to developed a bare-bones simplified relational database system that implemented various key database capabilities such as join algorithms, query optimization, concurrent transactions, resource locking, and recovery.