

Tia Jain

tiajain@berkeley.edu | <https://www.linkedin.com/in/tiajain/> | (408) 205-5004

EDUCATION

Computer Science at the University of California, Berkeley (Berkeley, CA, USA), August 2021-June 2025

GPA: 3.7

Relevant Coursework: Data Structures, The Structure and Interpretation of Computer Programs, Discrete Mathematics and Probability Theory, Designing Information Devices and Systems, AP Statistics

Skills: Java, Python, HTML, CSS, Web Design, Data Structures, Algorithms

EXPERIENCE

Sirota Lab-Bakar Computational Health Sciences Institute, University of California, San Francisco

Bioinformatics and Machine Learning Research Intern

June 2020 - September 2020

- Leveraged Bulk RNA-seq data (52000+ genes) to predict Systemic Lupus Erythematosus disease activity
- Performed machine learning (random forest classification of disease activity) with Bioconductor package MLseq1
- Leveraged DaMIRSeq package to extract the top 5 genes for each ethnic group (White, Asian) within each of 4 cell lines (CD14+, B, CD4+T, NK)
- Results will help stratify patients based on gene expression signatures to enable SLE precision medicine
- All analyses were conducted in RStudio on Amazon Web Services
- Co-authored a research paper titled "*Ethnicity-specific transcriptomic variation in immune cells and correlation with disease activity in systemic lupus erythematosus*" which was published in [BioRxiv journal](#) & [Communications Biology](#)

Females for Finance, Yale University

February 2021 - May 2021

Program Participant

- Program taught by Yale undergraduates for high school girls to catalyze their finance careers through education, mentorship, and networking
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COMPUTER SCIENCE PROJECTS

[AI4Sight iOS app](#), Founder (Swift)

- Uses machine learning and a voice-activated UI to enable the blind to recognize their surroundings, allowing safer navigation of unknown terrain
- 7 features: image classification, text recognition, face detection, live weather data, barcode scanner, eye health information, and a community forum
- Integrated Google Cloud Machine Learning models with Swift-based front-end

Gitlet (Java)

- Designed a version control system that replicated Git's core functionality, implementing branching, staging, merging, and committing file changes
 - Wrote comprehensive integration and unit tests
 - Leveraged various data structures, hashing, serialization, and OOP
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EXTRACURRICULAR ACTIVITIES & ENRICHMENT

The Association of Women in Electrical Engineering and Computer Science (AWE)

Activities & Operations Committee, August 2021 - Current

- Foster a community and support women in CS or EE through various academic, social, and outreach events
- Manage finances for the club

AI4ALL, July 2019 - Current

Summer Program Participant, July-August 2019

Princeton University Computer Science Department

- Learned about the fundamentals of AI with a policy and social justice-centered focus
- Collaborated to train a machine learning model to distinguish Melanoma from 7 other skin diseases (>80% accuracy)

Changemakers in AI Head Chapter Lead, December 2020 - Current

- Manage 15 AI4ALL chapters by facilitating virtual leadership training sessions and regular meetings to support 30 chapter leads in carrying out community-focused programming
 - Serve as liaison between AI4ALL staff and chapter lead team
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AWARDS & HONORS

- **UC Berkeley Leadership Award Recipient** (\$2000 Merit-Based Scholarship)
- **California State Seal of Biliteracy for Spanish**
- **Winner** for the Bay Area Affiliate of the National Center for Women in Computing Aspirations in Computing, January 2021
- **Presidential Volunteer Award**, 2019