

Benjamin Kramer

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EDUCATION

Case Western Reserve University

Cleveland, OH

Bachelor of Science in Electrical Engineering

Expected May 2026

- *Other Majors:* Bachelor of Arts in Computer Science, Bachelor of Arts in Economics
- *Minors:* Artificial Intelligence, Biology, Mathematics
- *GPA:* 3.77/4.0, Dean's High Honors
- *Relevant Coursework:* Calculus I-III, Linear Algebra, Data Science, Advanced Micro/Macroeconomics, Applicative Excel, Computer Programming, Data Structures, Discrete Mathematics, Physics: Mechanics/E&M, Circuits, Thermodynamics

UC Berkeley

Berkeley, CA

Summer Courses

Summer 2020 & Summer 2021

- *Relevant Coursework:* Artificial Intelligence in the Economy, Business and Finance

WORK EXPERIENCE

Hardware Engineering Intern, *New Sun Road, Richmond, CA*

June 2022 – August 2022, June 2023 - August 2023

- Used Python/JavaScript for embedded firmware development, working on improving data collection processes and UI/UX
- Operated hardware for microcontroller production, performed and created an apparatus for QC of microcontroller devices
- Tested, validated, and debugged HDMI (ethernet), DI/DO, CAN, MODBUS, DI/DO, and offboard temperature sensors
- Worked on business development techniques including data mining for targeted advertisements
- Enhanced international development projects through reviewing and translating surveys and reports with NSR Guatemala

Technology and Policy Intern, *City of Oakland, Oakland, CA*

June 2023 – August 2023

- Worked in office of City Councilmember Carroll Fife, District 3 (Downtown, West Oakland, Chinatown, Lake Merritt)
- Created a database of landmarks including neighborhoods, parks, religious sites, schools, and constructed an interactive map
- Conducted analyses on financial legislation using Python web scraping of Oakland's 2023-2025 Adopted Policy Budget
- Attended City Council, Committee (Finance, Rules), and constituent meetings, as well as mayoral press conferences
- Responded and resolved constituent inquiries through email and phone, surveying and canvassing the district

Research Assistant, *Case Western Reserve University School of Medicine, Cleveland, OH*

December 2022 - Present

- Studying fructose-induced salt-sensitive hypertension, analyzing genomic data with RNA-Seq using R/Linux Command Line
- Performed bioassays, reactions, and created solutions for in vivo and in vitro experiments
- Practiced safe animal care by handling rodents, performing injections and kidney and blood extraction surgeries
- Mentored by Professor Agustin Gonzalez-Vicente and Professor Jeffrey Garvin, Department of Physiology and Biophysics

Undergraduate Teaching Assistant, *Case Western Reserve University, Cleveland, OH*

August 2023 - Present

- Teaching assistant for Microeconomics (ECON 102), Electricity and Magnetism (PHYS 122), and Cell Biology (BIOL 215)
- Held weekly office hours and tutorials, assisted professors with course content, proctoring of examinations, and grading of exams and assignments for over 1000+ students

Peer Tutor, *Case Western Reserve University, Cleveland, OH*

August 2023 - Present

- Providing peers interactive one-on-one tutoring sessions in subjects including mathematics, engineering, biology, chemistry, physics, economics, accounting, and finance
- Assisted 60+ students with 10+ recurring students

ACTIVITIES & INVOLVEMENT

President, *Systems Biology Society at Case Western Reserve University, Cleveland, OH*

March 2023 – Present

- Holding events for those interested Systems Biology and related fields, including industry visits for 150+ members

Engineering Representative (Communications Committee), *Student Government (CWRU), Cleveland, OH*

August 2023 – Present

- Elected as one of sixteen engineering students representing 2,000+ engineering majors, leading initiatives to improve campus and student life, enhancing community discourse as well as planning university-wide events

Associate (Healthcare Vertical), *The Weatherhead Fund (CWRU), Cleveland, OH*

November 2022 – Present

- Exercising valuation methods, performing qualitative/quantitative research, and presenting buy/sell pitches

Director of Finance and Treasurer, *HackCWRU, Cleveland, OH*

November 2022 – May 2023

- Budgeted capital and attended events for fundraising and sponsors for the annual Hack-a-Thon

Eagle Scout & Senior Patrol Leader, *Boy Scouts of America, Pinole, CA*

November 2016 – November 2022

- Led meetings and outings including camping trips, hikes, and community service events for a troop of 20+ members

PUBLICATIONS & PROJECTS

- **Abstract:** Kramer B.K., Zhang R., Gonzalez-Vicente A. Sexually dimorphic transcriptional phenotypes in tubular epithelial cells of the rat nephron. *Hypertension* 80:Suppl_1, 2023. https://www.ahajournals.org/doi/10.1161/hyp.80.suppl_1.097
- **Expected Paper:** Addition of fructose to a high-salt diet increases the expression of aldosterone-response genes
- **Expected Paper:** Sexually dimorphic expression of the angiotensinogen gene in the S3 subsegment of rat proximal tubules

SKILLS

- **Software:** Python, JavaScript, C, C++, R, MATLAB, Altium, Solidworks, Advanced Excel, Bloomberg Terminal, Atlassian
- **Hardware:** MCUs, I2C, SPI, CAN, USB, HDMI, DI/DO, PCB layout & design, test coverage & validation
- **Languages:** English (Native Fluency), Mandarin Chinese (Advanced Proficiency), Spanish (Basic Proficiency)