YEH CHAN YOO

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EDUCATION

University of California, Berkeley
December 2023

Bachelor of Arts in Statistics and Political Economy with a Minor in Data Science

- **Relevant Coursework:** Causal Inference; Concepts of Statistics; Data, Inference, and Decisions; Econometrics (Math Intensive); Economic Theory–Macro; Economic Theory–Micro; Full Stack Development; Game Theory; Introduction to Artificial Intelligence; Introduction to Finance; Linux SysAdmin DeCal; Modern Statistical Prediction and Machine Learning; Principles and Techniques of Data Science

EXPERIENCE & EXTRACURRICULARS

UC Berkeley School of Education; Berkeley, CA • Research Assistant
January 2023 - December 2023

- Currently working on neural natural language classification models in Python for automatic short answer grading of student answers to mathematical and statistical questions; achieved 75% test accuracy with the use of a RoBERTa model as of November 29, 2023
- Graded and analyzed written answers to statistics assessment questions from more than 500 California high school and middle school students using Excel and R
- Assisted with the design and writing of the project's statistical assessment questions for California high school and middle school students
- Presented and reported to my project manager, my professors, and other undergraduate research assistants on the topics of machine learning-based automatic short answer grading and the use of GeoGebra for creating interactive educational applets

UC Berkeley College of Computing, Data Science, and Society; Berkeley, CA • DATA 102 Tutor
August 2023 - December 2023

- Writes the rubric and provides individualized feedback for assignment submissions every week for DATA 102: Data, Inference, and Decisions
- Independently grades labs, homework, and exams for ~250 students under tight 7-day turnarounds
- Explains complex data science concepts such as the confusion matrix, random forest, and propensity score weighting to students for at least two office hours every week

Open Computing Facility; Berkeley, CA • Finance Committee Co-Head (Volunteer Staff)
August 2023 - December 2023

- Manages and plans out spending for the annual $110,000 budget of Open Computing Facility (OCF), an arm of ASUC that runs a server, a computer lab, and a free printing and scanning service; looked over or approved over $15,000 worth of transactions so far as of October 29, 2023
- Creates complex budgeting plans for the organization's socials, ranging from small hikes to large retreat
- Finalized the operations staff stipend for the 2023-2024 academic year based on a data-driven analysis of financing and economic conditions
- Reported on the current state and the future recommendations for OCF's budget allocation for the 2023-2024 academic year based on data analysis of past transactions and current economic conditions

Open Computing Facility; Berkeley, CA • Finance Committee Member (Volunteer Staff)
January 2023 - May 2023

- Analyzed the facility usage metrics over the last ten years to evaluate current facility use by the UC Berkeley community and to estimate the cost needed to run the facility for the 2023-2024 academic year, identifying a 20% decrease in annual printing use compared to pre-COVID years but stubbornly high maintenance costs in computer and server maintenance
- Estimated projected operations staff stipend for the 2023-2024 academic year based on a data-driven analysis of political and economic conditions
- Presented facility usage metrics, stipend calculations, and pain points in computer and server maintenance to apply for funding from student government Associated Students of the University of California, successfully resulting in more than $40,000 in additional funding for the 2023-2024 academic year compared to the previous academic year

Republic of Korea Air Force; Daegu, South Korea • Translator Sergeant
May 2020 - February 2022

- Translated hundreds of pages of various government, legal, mechanical, and logistics documents (from Korean to English and from English to Korean) for the central air force depot to facilitate smooth communication on logistical and inventory issues between the Republic of Korea Air Force and various international arms manufacturers such as Boeing, Airbus, and Elbit Systems
- Translated maintenance manuals and training guides for aircraft systems containing extensive aviation and military terminology
- Received recognition from the Republic of Korea Air Force depot leadership for diligence, translation quality, and attention to technical qualities

Student Association for Applied Statistics; Berkeley, CA • Data Consulting Committee Member (Extracurricular)
September 2019 - December 2019

- Collaborated with 7 other teammates to create several machine learning models in Python for organization and algorithmic understanding of over 50,000 JSON files of complex customer API data from data security startup Trace Data (now acquired by Netskope)
- Led the committee's work in designing a K-means clustering algorithm using Pandas and Scikit-Learn to group the JSON files based on the type of content within the files
- Developed a pipeline that could classify what type of content was contained within the customer data (sales coupons, sports prediction, online orders, etc.) to allow the startup to provide customers with suggestions for keeping their API data secure

Student Association for Applied Statistics; Berkeley, CA • Research and Publication Committee Co-Head (Extracurricular)
January 2019 - May 2019

- Managed and led the committee as a co-head in Spring 2019; guided 15 committee members' research projects by assisting with their proposals, visualizations, and research article drafts while teaching research workshops on topics such as research ethics and data collection
- Organized and spearheaded the club's second (and first science fair-style) research symposium with 100 attendees and 30 projects across 4 data science student organizations to have committee members present their semesterly statistics/data science research projects with one another and with other student organizations

Student Association for Applied Statistics; Berkeley, CA • Research and Publication Committee Member (Extracurricular)
January 2018 - December 2019

- Conducted independent research to determine whether the legalization of euthanasia is connected to the suicide rate in Mexico and the Netherlands in Spring 2018; discovered that the judicial creation of criteria for allowing euthanasia may be connected to the relative decrease in suicide rate in the Netherlands compared to Norway in the 1970s with 10% significance (https://saas.berkeley.edu/rp/suicide)
- Wrote an independent research article on the meaning of probabilities in social sciences in the fall of 2018, discussing how frequentist and Bayesian interpretations of probability can be deployed in social science research (https://saas.berkeley.edu/rp/meaning-of-probabilities-in-social-sciences)

SK Wyverns; Incheon, South Korea • Intern
June 2018 - August 2018

- Analyzed several thousands of customer records from the baseball team database using Google Analytics, Python, SQL, etc. to identify customer sentiment and their app and website usage patterns, most notably identifying a 67% decrease in session time in the baseball team's fan talk forum after the recent launch of a new version of the fan forum
- Proposed new changes to the website and app user interface based on the analytics data, mainly suggesting the addition of pictures and visualizations and the addition of more links on the homepage to the team's media and forum content for greater accessibility

SKILLS

- **Languages:** Python, R, SQL, Git, Shell, HTML, CSS, Javascript
- **Tools:** Jupyter Notebook, JupyterLab, Github, Google Analytics, Microsoft Office (especially Microsoft Excel and Microsoft PowerPoint), Tableau
- Self-starter fluent in English and Korean with excellent communication, leadership, and analytical skills, with a passion for learning, and with strong attention to detail