Emiko Sano

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SUMMARY

Lab researcher turned data scientist with a track-record for communicating data-driven and high-impact results. Looking to leverage statistical & machine learning tools for inference and predictive analysis to pivot my career.

DATA SCIENCE PROJECTS

Identifying factors that affect students' performance using NYC schools survey data
- Used machine learning models (**PCA**, **linear regression**, **gradient boosting**) in **Scikit-Learn** & found that the perception of safety in schools is important in how well students perform
- Recommended schools to implement programs to address safety/bullying at schools

Predicting the origin of subreddits based on the text in the posts
- Cleaned and analyzed text using **NLTK**, **Countervectorizer**, or **TfidfVectorizer**
- Optimized classification models (**Logistic Regression**, **Random Forest**, **Naïve Bayes**, **Decision Tree**) reaching ~90% accuracy for the best model

Generating a risk index due to COVID-19, wildfires, and earthquakes in California (Collaborative Project)
- Created a combined-risk indices by using unsupervised learning (**PCA** and **clustering analysis**)
- **Visualized** index on maps to guide disaster preparedness plans at the county level

EXPERIENCE

Correlation One   Remote
Data Science Teaching Assistant   2021 – Present
o Guide students through data science topics (data wrangling, visualization, hypothesis testing, statistical inference, A/B testing, linear models) and debugging python codes
o Manage team projects making sure that all teams are reaching their milestones and making progress

Freelance   Missoula, MT/Remote
Science Expert Reviewer @ Study.com | Private Biology Tutor   2018 – Present
o Reviewer: Editing and fact-checking of educational science content (biology, chemistry, math) to bring the material to Study.com's standards while providing positive and constructive feedback to content writers
o Tutor: Prepare material and break down complex concepts for biology high school students

The University of Montana   Missoula, MT
Postdoctoral Researcher   2013 - 2018
o Led a microbial evolution research project from **experimental design** to **statistical analysis**
  ⇒ Used **R** and **Excel** for analysis; **t-test**, **ANOVA**, **Tukey's HSD test**, **regression analysis**
  ⇒ Resulted in a publication in *Nature Ecology and Evolution*
o Produced preliminary findings that contributed to the award of a multi-lab, $8.2 million grant
o Trained and mentored all lab personnel (total of 12) who ranged from high school, summer interns, undergraduate, and graduate students: all of them are successful at pursuing their next career goals

University of California, Davis   Davis, CA
Postdoctoral Researcher   2012
o Performed microbial physiology research to collect data for a genome-wide expression study (microarray)
o Extracted and transformed data to export to **Excel** files for analysis using **R**

University of California, Davis   Davis, CA
Graduate Student Researcher/Teaching Assistant   2005 - 2011
o Conducted microbial genetics research (**experimental design**, data collection, and **statistical analysis**)
  ⇒ Resulted in a publication in a peer-reviewed journal (*Genetics*) and issue-highlighted article
  ⇒ Conducted **hypothesis testing** and applied **regression analysis** in Excel
o Presented research at local to international scientific conferences in oral or poster presentations
o Taught a microbiology lab and two introductory biology courses for majors (a total of about 175 students):
  ⇒ Students who came consistently to my office hours increased their grades by half a grade or more
  ⇒ The passing rate for all terms combined was at around 95%

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SKILLS

Python | PostgreSQL | Excel | Tableau
Basic knowledge: R | Web Scraping | Neural Networks (CNN & RNN) | A/B Testing | Regex | Git | Bash | AWS

EDUCATION

University of California, Davis   Davis, CA
Ph.D. Microbiology
- Microbiology Graduate Group Representative to UC Davis Graduate Student Association (2 years)
- Intramural Sports Microbiology Soccer Team Organizer/Captain (4 years)

San Diego State University   San Diego, CA
B.S. Biology with an emphasis in Cellular and Molecular Biology
- Graduated Magna Cum Laude

General Assembly   Remote
Certificate of Completion in Data Science   2020

VOLUNTEER EXPERIENCE

Dat0s | A Minority Data Community   Remote
Engagement Manager | Events Coordinator   2021-Present
- Promoting engagement by helping other data scientists with data projects and having bi-weekly social hour
- Coordinating internal events for promoting career advancement for data professionals

Soft Landing Missoula   Missoula, MT/Remote
Math and Science Tutor   2019-Present
- Working with refugee high school and middle school students to go over math and/or science homework