
Lulu Ricketts

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EDUCATION

University of California, San Diego

La Jolla, CA

(Sept. 2018 — June 2021)

Bachelor of Science in Cognitive Science, with Specialization in Machine Learning

Minor in Computer Science

- **GPA: 3.72**
- *Relevant Coursework: Object-Oriented Programming with Java, Discrete Mathematics, Data Science in Practice, Basic Data Structures and OO Design (Java/C/C++), Software Techniques and Tools Lab, Vector Calculus, Probability and Statistics, Advanced Data Structures, Computer Organization and Systems Programming, Neural Signal Processing, Intro to Machine Learning I, Linear Algebra*

IBM Data Science, IBM

Coursera "Professional Certificate"

(Sept. 2019)

- This 9-course sequence covered applied data science and applications in conjunction with pandas, sci-kit learn, and statistics

PROFESSIONAL EXPERIENCE

Software Engineer Intern, Scripps Research Institute

La Jolla, CA (Remote)

(June 2020 — Sept. 2020)

- Implemented filters to condense and rank results returned by BiothingsExplorer from over 800 to the top 50 most relevant
- Wrote the parser file to create an API containing the co-occurrence between two biomedical concepts using the NIH MRCOC co-occurrence in literature file containing over 250 million data points
- Utilized ReactJS to create a more responsive and user-friendly interface for the BiothingsExplorer website
- **Tech Used:** Python, ReactJS, NodeJS, Javascript, CSS, Cytoscape, NetworkX, Semantic-UI, Git

Data Science Research Assistant, UCSD Voytek Lab

La Jolla, CA

(Feb. 2020 — Present)

- Cleaned over 40,000 rows of behavioral data from cognitive game app Lumos
- Found the presence of a Flanker effect: that taking breaks in practice affects performance of a task
- Collaborated with teammates by using version control

Data Science Student Society at UCSD, Projects Manager

La Jolla, CA

(Sept. 2019 — Present)

- Worked closely with the Halicioglu Data Science Institute to plan 6 data science projects per quarter
- Communicated with local businesses about potential project collaborations and novel data availability

Undergraduate Research Assistant, UCSD Brady Lab

La Jolla, CA

(Sept. 2018 — Feb. 2020)

- Collected data by giving instructions to over 100 participants for psychology research experiments
- Gained proficiency in multiple languages including MATLAB and R for data analyses

PROJECTS

German Traffic Sign Recognition Benchmark

Github: "gtsrb_winter"

(Oct. 2019 — May 2020)

- Built and trained a convolutional neural network to recognize and classify 43 classes of traffic sign images
- Applied transfer learning on ResNet18 to attain a testing accuracy of 85%
- Achieved final accuracy of 96% after implementing resampling, greyscaling, and affine transformation functions
- **Tech Used:** PyTorch, Python, pandas, numpy, CNNs, tensors, matplotlib

2019 Mass Shootings and Violence Analysis

Github: "GunViolenceAnalysis"

(March 2020)

- Analyzed correlations between areas that experienced shootings, their incomes, and their top venues
- Visualized geospatial data using two kinds of clusters to determine which areas are more at risk of shootings
- **Tech Used:** Python, Geopy, K-means clustering, Foursquare Places API, Folium Maps

Austin Animal Shelter Adoption Rates

Github: "AAS_Adoptions"

(Oct. 2019 — Dec. 2019)

- Analyzed meta-data concerning over 70,000 intakes and outcomes from an animal shelter in Austin, TX
- Created visualizations with matplotlib to draw conclusions about which animal features in cats and dogs are more desirable