

Karina Chen

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EDUCATION

University of California, San Diego

Sept 2020 - Mar 2024

Data Science B.S., Design Minor

- GPA: 3.98
- Relevant coursework: Calculus & Analytical Geometry, Data Analysis & Inference in R, Data Management, Data Structures & Algorithms, Data Visualization, Deep Learning, Image Processing, Interaction Design, Linear Algebra, Machine Learning, Mathematical Statistics, Probabilistic Modeling and ML, Recommender Systems & Web Mining, Representation Learning, Systems for Scalable Analytics
- Honors: Magna Cum Laude, Provost Honors (every quarter)

SKILLS

- **Languages:** Python, Java, SQL, HTML, CSS, Javascript
- **Other:** Pandas, Numpy, Scikit-learn, BeautifulSoup, Matplotlib, Seaborn, Scipy, Jupyter Notebook, GitHub, Tableau, RStudio, LaTeX, Microsoft Office, React.js, D3, Figma, Rally

WORK EXPERIENCE

American Express

Jun 2023 - Aug 2023

Software Engineering Intern

- Led planning and developed enhancements for an internal Financial Strategy Tool on the Financial Data Engineering scrum team following the Agile methodology
- Designed and implemented application home page featuring adaptive navigation to internal pages and external applications using React.js, HTML, and CSS
- Identified and corrected data discrepancies from backend JSON output and configured dynamic page layout and tooltips for displaying information on data dashboard
- Built custom AI chatbot using RASA framework that can answer 30+ application FAQs to improve usage efficiency and domain understanding

Halicioğlu Data Science Institute

Jan 2022 - Dec 2022

Instructional Assistant/Tutor

- Tutored three quarters of classes of 150+ students in DSC 20: Programming & Data Structures in Python
- Debugged code and explained course concepts including simple data structures, recursion, and object-oriented programming in one-on-one office hours held at least 4 hours a week, resolving 300+ student tickets
- Coordinated with teaching staff regarding logistics of creating and grading assignments and answering student questions

Hey Social Good

Mar 2021 - Sept 2021

Data Science Intern

- Captured data from 50+ publicly available websites using Python packages Selenium and BeautifulSoup
- Designed and formatted the translation of captured social good business data into custom designed PDF documents with 4-person Data Analytics Team
- Supported company's Sentiment Analysis Project by testing the applicability of Twitter's social information using Twitter API and Microsoft Azure Text Analytics API

PROJECTS

Diffusion Models for Image Generation

Sept 2023 - Mar 2024

- Implemented diffusion models for data science capstone project under the mentorship of Alex Cloninger and Rayan Saab
- Clarified the diffusion process using a spiral distribution in Pytorch (https://github.com/karinaechen/spiral_diffusion)
- Investigated how the 3D properties of depth, saliency, and illumination are encoded within the internal activations of latent diffusion models using linear probing (<https://ester-tsai.github.io/diffusion-model-internal-representation/>)

Analysis and Prediction of Survivor Winners ([link](#))

Aug 2023

- Use pandas, numpy, and scikit-learn to clean dataframes, perform feature engineering, and apply models to predict winners