

# Karina Chen

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## EDUCATION

### University of California, San Diego

Sept 2020 - Mar 2024

*Data Science B.S., Design Minor*

- GPA: 3.99
- 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, Prototyping\*, Recommender Systems & Web Mining, Representation Learning, Systems for Scalable Analytics (\*in progress)
- Honors: 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

### Halıcıoğlu 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 and communicated with teaching staff regarding logistics of creating assignments and answering questions on the class forum
- Graded 450+ student assignments and assessments and proctored student examinations

### 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
- Presented results, contributions, and challenges of sentiment analysis project to CEO to inform project viability

## PROJECTS

### Diffusion Models for Image Generation

Sept 2023 - Present

- Implementing 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/karinaeichen/spiral\\_diffusion](https://github.com/karinaeichen/spiral_diffusion))
- Investigating the internal representations of depth and saliency within the neural network of the diffusion process