

MATIN GHAFARI

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Education

University of California, San Diego - Bachelor of Science, Data Science | August 2020 – March 2023

- 3.965 GPA - Provost Honors - [Transcript](#)

CODEPATH iOS Development Course for University of California, San Diego | August 2020 – December 2020

- Honors certificate of achievement
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Skills and Concepts: software development (AGILE, SCRUM, JIRA), unit-testing, exploratory data analysis, data visualization, data inference, predictive analytics, supervised and unsupervised learning (model selection, feature engineering, probabilistic modeling, regression, classification, kernel methods, decision trees, boosting, neural networks), natural language processing, computer vision, http requests and web scraping, text/data mining, optimization algorithms (gradient descent, empirical risk minimization), SQL data model, relational data modeling and schema design, relational database architecture, principled approaches to handling missing data, techniques for algorithmic fairness, statistics via simulation, sampling, hypothesis testing, bootstrap methods, distributed systems, MapReduce, recommender systems, inversion of control and dependency injection, messaging queues and streaming (Kafka)

Programming Languages: Python, Java, R, C++, Rust, Solidity, PostgreSQL, C, C#, Swift, TypeScript, JavaScript, React, ARM assembly, GraphQL

Tools/Frameworks/Other: Pandas, NumPy, Sklearn, Seaborn, Matplotlib, Plotly, ggplot, GIT, PyTorch, TensorFlow, Keras, OpenCV, NLTK, Pyscogg, Flask, Spark, Dask, Modin, AWS (EC2, MSK, S3, EKS, SQS), .Net, Redis, GIS, D3.js, Node.js, Express.js, BeautifulSoup, Qt, Doxygen, Valgrind, GDB/GEF, Pillow, SciPy, SFTP, Tableau, GPT, Kafka, Docker, Kubernetes, ACR, Argo, InfluxDB, Splunk, Nagios, Spring Boot, Mockito, Web3, Anchor (Solana)

Experience

Franklin Templeton, Remote | April 2023 – Present | **Software Engineer**

- Collaborated in a cross-functioning team of developers and quant traders to develop a digital assets management dashboard via Python, Java, R, and React.
- Built skills in application architecture, clustered environments, micro-services, building APIs, DB administration, streaming/indexing messages via Kafka.
- Led the development of Solana smart contracts using Rust and TypeScript for Franklin OnChain US Gov. Money Fund (FOBXX) (BENJI token).
- Gained exposure to development on Stellar, Arbitrum, Aptos, and Polygon blockchains.

Transcepta LLC, Aliso Viejo | July 2021 – December 2021 | **Software Engineering Intern**

- Developed experience in backend web development by working with .Net Framework and implementing a Redis cache.
- Established proficiency in working with REST APIs and software tools such as Postman and Microsoft SQL server management studio.

Computer Science Department, Saddleback College, Mission Viejo | August 2020 – December 2021 | **Arm Assembly Tutor**

- Selected by an instructor to serve as an embedded tutor for an assembly language and computer organization course.
 - Taught assembly language principles, debugging skills, and concepts within operating-systems and multi-level machines.
 - Enabled students in making complex software with data structures and algorithms by using assembly as a bridge to hardware.
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Projects

BlockBazaar – Decentralized Marketplace | github.com/matin-g/Q2-DSC180B-A02 | Using Solidity, Node.js, Express.js, and Web3

- Developed smart contracts in Solidity for the Ethereum and Polygon blockchains and a website for a decentralized exchange <http://blockbazaar.net> ([white paper summary](#) and [white paper](#)).
- Awarded 2nd place in the 2023 Franklin Templeton University Blockchain Contest and Halicioğlu Data Science Institute outstanding capstone project.

UCSD Deep Learning Kaggle Competition | github.com/matin-g/DLcomp | Implemented MLP, CNN, RNN, GRU, LSTM using PyTorch

- Collaborated in a team of four to build deep learning models that predict future trajectories of autonomous vehicles.
- Ranked 5th place out of 48 teams after feature engineering, tuning, and experimentation of various models.

Music Generator | github.com/matin-g/MusicGenerator | Using PyTorch and fine-tuned GPT3 model

- Worked in a team to develop a RNN in PyTorch to generate lyrics from an input seed and a fine tuned GPT model to generate sheet music.
- Currently trained on Beatles songs to create Beatles inspired songs and may be easily expanded to generate music for any other artists/genres.

Deep Learning projects | github.com/matin-g/DL | Using PyTorch and TensorFlow (NLP and computer vision)

- Architected a model that generates Shakespeare sonnets given an input seed of characters using a LSTM model in PyTorch.
- Built a model that classifies the type of food in an image using a CNN in TensorFlow.

Exploratory Data Analysis Reports | github.com/matin-g/EDA | In Python and R using statistical and probabilistic ML methods

- Collection of data exploration projects with various statistical methods, graphical methods, and geospatial visualizations.
- Implemented applications of machine learning used in making predictions.

Cookr | github.com/matin-g/cookr | Built with XCode, Cocoa, Parse, Swift, Objective-C

- Engineered an iOS social networking application geared towards sharing recipes and interacting with friends and strangers about food.
- Collaborated in a team of four using Agile and Scrum software development methodologies.

Quoala | github.com/matin-g/NPHackMIT | Built with Qt creator and C++

- Hackathon project that dynamically assesses users' mental health as a desktop application tool for productivity.
 - Teamed with university students and presented the application to a panel of judges for HackMIT 2020.
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Leadership Experience and Community Engagement

Association of Computing Machinery (ACM), Saddleback College | August 2019 – August 2020 | **Treasurer and Co-Founder**

- Established connections for pro-bono software services, coordinated guest speakers, and developed a mentorship program for STEM students.

International Collegiate Programming Competition | August 2019 – November 2019

- Worked in a team of four, where we prepared together weekly by practicing competitive programming problems and studying concepts outside of our current scope of education, as well as developing our teamwork and time management skills.

Eagle Scout, Irvine Troop 606 | April 2017

- One of the ~6% of Boy Scouts in America to earn the highest rank of Eagle Scout by exemplifying skills in leadership, citizenship in the community, project and team management, communication, coordination and planning. Developed passions for community service, conservation, and the outdoors.