

Jay Harkhani

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EDUCATION

University of Southern California (USC), Los Angeles, California

August 2021-May 2023

Master of Science in Computer Science

Relevant Coursework: Analysis of Algorithms, Database Systems, Web Technologies, Game Development

Dwarkadas J. Sanghvi College of Engineering, Mumbai, India

July 2017-June 2021

Bachelor of Engineering in Computer Engineering with CGPA: 3.8/4

Relevant Coursework: Data Structures, Distributed Systems, Machine Learning, Computer Networks, Operating Systems, Artificial Intelligence, Big Data Analytics, Data Mining

TECHNICAL SKILLS

Programming Languages:	Python, Java, JavaScript, C
Database Software:	AWS DynamoDB, Oracle, MySQL, MongoDB, PostgreSQL
Web Technologies/Frameworks:	Django, Node.js, Spring Boot, Angular, REST, Nginx, Docker, Express.js, React, jQuery, Flask, Android, DropWizard
Tools:	Jenkins, Datadog, Apache JMeter, Git, Tableau, Unity, Android Studio, SonarQube, Jira

EXPERIENCE

Software Engineer Intern, Twilio, San Francisco, California

May 2022-Present

- Implemented Short Codes feature in Global Resource Routing(GRR) Service which will help company's customers and downstream services to configure/manage Short Code Resource directly from Twilio console.
- Increased code coverage by 12% by adding Unit & Integration Tests to identify bugs in the code before it is deployed.
- Updated Jmeter script to enhance Load Test configurability by enabling/disabling tests on a per-endpoint basis.
- Modified Jenkins pipeline to run load tests with user-defined throughput values for each API and evaluate its metrics such as RPS, latency, cache hit, etc in Datadog dashboard.

Data Analytics Intern, The Shaadi Times, New Delhi, India

May 2020-June 2020

- Led in requirement gathering and collecting data about growth in Online Education Market due to covid-19 through web scraping and interacting with stakeholders in Education Industry.
- Implemented Python scripts for server setups, data storage, and executing queries on data.
- Created Tableau Dashboard and Reports to reduce time taken for making data-driven business decisions.

Software Engineer Intern, Tata Consultancy Services(TCS), Mumbai, India

December 2019-February 2020

- Processed data of more than 7000 customers of telecommunication company to remove redundancy and inconsistency.
- Managed a team of 4 to construct a Machine Learning model with an accuracy of 90% to predict Customer Churn.
- Built a Customer Segmentation Tool for Marketing Team to boost customer retention rate and company profitability.
- Used Seaborn library to visualize customers' data based on demographics and other factors to support the Sales Team.

Software Engineer Intern, Nautilus Hearing Solutions, Karnataka, India

August 2019-September 2019

- Built a website using PHP and JavaScript to increase company's digital reach by making its hearing aid products accessible.
- Optimized SQL queries and Front-end code to reduce page load time to 8 seconds thereby enhancing website's performance.
- Created an Admin Panel to manage or post new content on the website and act on messages received from clients.

PROJECTS

Virtual Stock Trading

February 2022-April 2022

- Built an Android application and a website for users to get up-to-date information about share prices, analyst buy/sell recommendations and market news using Finnhub APIs.
- Implemented daily and historical charts by utilizing JavaScript's HighCharts library that helps traders to make a profit by performing technical analysis.
- Improved app responsiveness by calling APIs asynchronously and reducing average response latency by 50 seconds.
- Added Portfolio section with an initial amount of \$25000 which users can use to buy and sell stocks and Watchlist feature to monitor favorite shares.

Website Link: <https://client-dot-assignment-8-346123.wl.r.appspot.com/>

Shuriken Strike

January 2022 – April 2022

- Developed ninja-themed game with Unity where users will use Shuriken as a weapon to destroy enemies.
- Integrated Legacy Analytics Dashboard to enhance user gameplay by analyzing game metrics collected using custom events.
- Added freeze power-up that stops enemies for 10 seconds, along with hint and monetization feature to make the game more captivating.

Game Link: <https://sharktank.itch.io/shurican-strike>

Smart Prosthetic

October 2020-May 2021

- Developed an algorithm with an accuracy of 80% that predicts day-to-day hand movements of amputees by utilizing Electromyography(EMG) sensor signals generated by contraction of muscles.
- Applied Isomap Decomposition on 6000 features in dataset to reduce computation time and improve model accuracy.
- Executed Holt-Winter Exponential Smoothing to remove noisy data from 900 signals captured from participants' hands.