RITIK RAINA

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🏛 EDUCATION

University of California, San Diego *September 2018 -* **June 2022**
B.S. Cognitive Science: Specialization in Machine Learning and Neural Computation

📄 RELEVANT COURSEWORK

Advanced Data Structures	Algorithms and Systems Analysis
Data Science in Practice	Computer Organization and Systems Programming
Object Oriented Programming	Artificial Intelligence Algorithms

💻 SKILLS

Languages Java, Python, Swift, React.js, HTML, CSS, C++, LaTeX, Bash, Assembly
Software & Tools UNIX, Git, Vim, Jupyter, MongoDB, CocoaPods, Google Firebase, OpenCV, OpenGL, Tensorflow

</> EXPERIENCE & LEADERSHIP

CodePath | Tech Fellow January 2020 - Present
Worked with: Xcode 11, Swift, CocoaPods
· Increased the largest pipeline of high-performing underrepresented engineers in tech via Codepath, a nonprofit that has raised $1 million from Facebook.
· Taught Facebook-designed 12-week iOS course to 45+ students through the hands-on experience.
· As an instructor, I was required to maintain a high-level of understanding of the curriculum topics including but not limited to: Frameworks, iOS Libraries, Back-end (Parse), APIs, AutoLayout (constraints), and CocoaPods.

STAR Capital | Machine Learning Intern July 2019 - September 2019
Worked with: Python, Tensorflow, OpenCV, Dlib C++, Firebase, SciPy, NumPy, Pandas, Keras
· Developed Python scripts which used Selenium, Request, and BeautifulSoup frameworks for evaluating web-scraping models. These models were then used to scrape credit rating documents off FinTech sites.
· Researched and developed CNN/Spatial models for training and evaluating facial detection & recognition systems based on employee facial data.
· Designed and implemented custom spatial algorithms and data structures for deriving facial landmarks.

VennPool | Software Developer November 2018 - April 2019
Worked with: HTML/CSS/JavaScript, Bootstrap, Firebase, Expo, React
· Designed and developed the company website's interface using Bootstrap themes and CSS/Semantic UI.
· Communicated with mentors and investors as a part of the startup incubator, The Basement.
· Worked with Google Firebase APIs to authorize access to the application and control service operation access.

🗄 RESEARCH

Reinforcement Learning and Cognitive Neuroscience Lab | Research Assistant April 2020 - Present
Worked with: Prof. Marcello Mattar
· In progress with studying the effects of Reinforcement Learning when accompanied by high-dimensional and efficient representations of neural activity when playing Chess.
· Experience with RL Nets such as HotNets'16 and AlphaZero.

🗄 PROJECTS

Invoice Logger January 2020
Uses: MongoDB, Express, HTML/CSS/JavaScript, React
· Built a reactive web application using MERN stack for querying banking transactions uploaded to a MongoDB collection. Built to explore the various features of MongoDB Atlas.

Tweet4Me December 2019
Uses: Swift, Alamofire, Twitter REST API, UIKit, AFNetworking
· Custom Twitter app for browsing and interacting with a personalized feed.
· Implements the Twitter RESTful API to supply feed with tweets and allow users to tweet, retweet, and favorite.

Awakened: Eye Predictor for User Vehicle Safety October 2019
Uses: Python, SciPy Spatial, Dlib, iMutils
· A Python/Django application which could monitor the eyes of a driver. If the driver's eyes were closed for ≥ 2 seconds, an alert would buzz to wake the driver. After each vehicle trip, an online report would be made to measure the total time the driver was unconscious for. This was a group project built at the 2019 MLH SDHacks.