

HERAMB VIJAY DEVBHANKAR

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EDUCATION

MS in Computer Science, University of Southern California, Los Angeles

Jan 2021 - Dec 2022

EXPERIENCE

SAG-AFTRA Foundation, Los Angeles CA

May 2023 - Oct 2024

Software Development Engineer

- Led an Agile team in developing iOS (Swift) and ReactJS for actor profiling and resource management, overseeing the entire development lifecycle to ensure high-quality, timely delivery.
- Optimized iOS application and ReactJS architecture and performance through code reviews, testing frameworks, and integration with backend systems using Python-Django.
- Automated deployment pipelines and implemented AWS load balancing for high availability and scalability, ensuring reliable performance under variable traffic conditions.
- Ensured seamless integration of Django ORM for backend data management and enhanced application functionality through effective implementation of Django email systems, while maintaining a dynamic frontend using ReactJS.

Eye Labs Inc, Santa Clara, CA

Sep 2022 - Apr 2023

Software Development Engineer

- Built an iOS application in SwiftUI that would use the Vision module to find anomalies in the eye using iPhone Front Camera.
- Wrapped UIKit elements using UIViewControllerRepresentable embedding advanced UIKit features in the mobile app.
- Implemented mathematical algorithms on facial landmark coordinates to find face directions and eye direction.
- Established a baseline product for FDA clinical trials and Successfully tested the mobile application on various Eye patients.

University of Southern California, Los Angeles, CA

Apr 2021 - Aug 2022

Research Assistant

- Devised and Programmed approaches for tracking movements and gene expression in free-moving flies in GFP video. Trained and compared LSTM and CNN models to identify and classify movement trajectory of Drosophila fly.
- Research different ways to train a state of the art face recognition system using pure synthetic data (without using real images). Train starGAN using MS synthetic face images dataset for data augmentation and multi domain image-to-image translations.

IOTric, India

Aug 2019 - Dec 2020

Software Development Engineer

- Created web application that allows users to upload distorted invoice/ receipt images and extracts the text from it. Created three staged pipelines for object detection, text detection and text extraction. Deployed object detection model on AWS EC2 instance and constructed REST API to access the model. Scaled the response time of the web application to 100ms per document.
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PROJECTS

Stocks iOS App | Technologies: *Swift, SwiftUI, Node.JS* - [Project Demo Link](#)

- Built Stock Trading iOS app that fetches real-time stock values, allows users to trade and maintain the stock portfolio and profile.
- Integrated third-party library Highcharts-iOS to display statistical insights and graphs and Kingfisher to render URL images.
- Utilized Objects, API calls, UserDefaults, UIWebView, NavigationViews, etc. to render/ display dynamic elements.
- Deployed Node.JS back-end on GCP to handle FintubAPI live stock data and to send clean JSON at front-end.

Stanford University project: Tactile Image Generation for blind | Technologies: *Python, OpenCV, Pillow, Tensorflow, Flask*

- Developed a REST API that can automatically convert RGB images to tactile format for visually disabled.
- Examined the collective use of Instance Segmentation, Deep Learning based edge detection (Dense extreme Inception network model), and morphological transformation operations to achieve the conversion.

Unity 3D Game Xcape | Technologies: *C#, Unity 3D* - [Game WebGL](#)

- Built a customized escape room style game for using Unity 3D game engine and C#. Utilized Canvas, prefabs, etc.

'Spoken2written' Python Package Publication `pip install spoken2written` | Technologies: *Python, Spacy, Numpy* - [Project Link](#)

- Programmed and published an open source library that converts texts of spoken styles to its equivalent written form.
 - Combined Name Entity Recognition, token matcher and programming methods to develop and publish a package on PyPI.
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TECHNICAL SKILLS

- Programming Languages: Python, JavaScript, Swift, C++, C#, Scala, Ruby
- Web/ Mobile Technologies: iOS App, Ruby on Rails, TypeScript, SwiftUI, UIKit, ReactJS, Django, NodeJS, HTML, AngularJS, AWS
- Database/ Other: MySQL, PostgreSQL, SQL, Pytorch, Design Patterns, Keras, scikit-learn, tensorflow object detection API