Saieswar Reddy Vaka

San Jose, CA

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Education

- **Master of Science, Computer Science** — Expected May 2024
  San Jose State University GPA: 3.85/4.0 — *San Jose, CA*
  Courses: Machine Learning, Artificial Intelligence, Advanced Programming Language Principles, Database System Principles.
- **Bachelor of Technology, Computer Science Engineering** — Aug 2018 - Jun 2022
  Bennett University GPA: 3.5/4.0 — *Greater Noida, India*

Skills Summary

- **Languages**: Python, Java, SQL, JavaScript, Go, Swift, Haskell, HTML/CSS.
- **Technologies**: PyTorch, TensorFlow, SciKit, REST, ReactJS, NodeJS, MongoDB, AngularJS, Docker, Kubernetes, Postgres.
- **Tools**: GIT, JIRA, AWS, Firebase, XCode, Android, Figma.

Experience

- **Software Developer Intern** — Sep 2021 - Jan 2022
  MoveInSync — *Bengaluru, India*
  - **Localization**: Led team on iOS native app development, localized app in three different languages Spanish, Arabic, and French, automated the process using Python and Google Translate APIs which reduced development time by 35%.
  - **Upgraded Location API**: Spearheaded Location API infrastructure, and visualized the user analytics using Firebase crashlytics, backbone for several projects across MoveInSync by harnessing the power of Firebase tools.
  - **Pagination/Caching**: Implemented pagination for notification services using Firebase Cloud Messaging, reduced retrieval time by 10 fold.
  - **Parking Management Feature**: Built parking management feature using Figma, and SwiftUI, that increased client satisfaction ratings by 20%.
- **Machine Learning Intern** — Jan 2021 - Jun 2021
  Picxy — *Hyderabad, India*
  - **ML Pipeline**:
    - Researched and applied deep learning models for user recommendations. Improved F1 score of the existing models by 15%.
    - Accomplished end-to-end project work: Managing data annotation, training models, deploying REST APIs, and integration with current pipelines.
  - **Image Compression**: Optimised load times by compressing images to 3x smaller size, leading to gains of 50%.
  - **Analytics**: Created an interactive tool for visualization of results using Python Dash.

Academic Projects

- **Fake Malware Generation using GAN's** *TensorFlow, Python* — Jan 2023 - May 2023
  - Implemented generative adversarial networks (GANS) to generate adversarial malware samples as DLLs/API calls to differentiate between fake and benign samples.
  - Compared and contrasted GAN, WGAN and WGAN-GP using multiple machine learning classification techniques like Support Vector Machines, k-Nearest Neighbor, Random Forest, and Naive Bayes Classifier.
  - Obtained a classification rate of 94%, and the adversarially generated samples have a detection rate of 0 to 3%, which means the generated fake malware is closer to benign samples.
- **BirdCall Identification** *Sci-kit, Keras* — Aug 2022 - Dec 2022
  - Executed a robust solution to identify and extract useful features of birds' voices from natural soundscapes using Short- time Fourier transform and Mel Frequency graphs as pre-processing techniques to classify them based on their species.
  - Compared and contrasted various models of CNN like ResNet, VGG16, DistillBERT, and so on to predict bird species.
  - Increased model's accuracy almost by 10x times by working with EfficientNets, accuracy of 92% and F1 score of 86%.
- **Peek 'N' Shop** *JavaScript, Angular, MUI, Go* — Jan 2022 - Apr 2022
  - Pioneered a website for students at University of Florida to find affordable places and deals in and around campus leveraging Angular, JS and bootstrap framework devised using Figma.
  - Utilized JSON web token to provide authentication flow in the app, leveraging passport and passport-jw packages and integrated the app with SQL database through APIs programmed using Go lang.

Honors and Awards

- Ranked first in Bennett Tech Hackathon (2019) and Top 10 in Bennett Tech Hackathon (2020).
- "Rice Plant Disease Detection" - Research Paper Published at IEEE.
- Coordinated and organized events of at least 250 student leads, 20 clubs, and 5 professors as Adobe Student Ambassador.