Keerthana Chinthala

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Education

University of Florida January 2024 - December 2025
Masters of Science in Computer Science *3.92 CGPA*

Vasavi College of Engineering August 2018 - June 2022
Bachelor of Engineering in Computer Science *9.18 CGPA*

Technical Skills

Programming Languages & Frameworks: Python, C, C++, SQL, JavaScript, Java, HTML, CSS, Flask, Flask-Restless, Angular, AngularJS, Bootstrap, PHP
Developer Tools & Libraries: Docker, Google Cloud Platform (GCP), VS Code, PyCharm, Eclipse, Pandas, NumPy, GDAL, Matplotlib, scikit-learn, jQuery, Rasterio, PyTorch
Database Management & Version Control: MySQL, SQLAlchemy, Git
Project Management & Productivity Tools: Confluence, Jira, Microsoft Office Suite, Spreadsheet Software, EmEditor

Experience

UF College of Veterinary Medicine February 2025 - Present
Graduate Student Assistant *Gainesville, FL*

- Processed Whole Slide Imaging data from canine tumor samples and trained a weakly-supervised attention-based deep learning model to classify tumor vs. normal tissues, leveraging PyTorch, NumPy, and OpenSlide for patch-level feature extraction and analysis.
- Generated attention-based heatmaps and computed spatial metrics like “Moran’s I” to identify tumor localization patterns, achieving 70% accuracy. Recently integrated a diffusion model to synthesize high-attention H&E tumor patches, aiming to augment dataset size and improve model robustness.

TerraviewOS August 2024 - December 2024
Research Apprenticeship *Remote*

- Conducted research on Synthetic Aperture Radar (SAR) imaging for soil moisture analysis, addressing challenges like cloud cover and dense vegetation using Sentinel-1 data.
- Preprocessed SAR data in SNAP, applying radiometric calibration, terrain correction, and noise reduction; developed machine learning models for soil moisture prediction utilizing Python libraries such as Rasterio, GDAL, and SMAP.

Oracle NetSuite July 2022 - December 2023
Software Development Engineer (SDE)(IC-2) *Hyderabad, TS*

- Engineered a robust feedback application using AngularJS (front-end), Flask (back-end), and Python, empowering over 1,000+ businesses to share product feedback and request new features. Evaluated feedback using Matplotlib, generating insightful graphs that uncovered major customer pain points, key interests, and opinions, achieving feedback from 90%+ of users without direct outreach.
- Spearheaded the conceptualization and development of 5+ critical product updates over a 3-month sprint, ensuring full compliance with design principles and significantly enhancing product functionality.
- Directed the design of 10+ UI screens using Figma, collaborating with the UI/UX team to guarantee visual consistency across the product.
- Orchestrated the handling of 100+ settlements and refunds between clients and customers via REST APIs with JSON based payloads, delivering features tailored to user needs that streamlined transactions and boosted efficiency.
- Optimized the codebase, accelerating API performance by 5% through rigorous refactoring, resulting in improved system responsiveness.
- Created and maintained detailed code and API documentation for all new features and bug fixes, leading to a 20% faster resolution of developer support tickets and smoother onboarding for new team members.

Projects and Publications

User-Centric Adaptive Clustering Approach to Address Long-Tail Problem in Music Recommendation System | *ML*

- Enhanced song recommendations for the ”Long Tail” segment by developing adaptive clustering techniques using KNN and Weighted KNN, resulting in a 23.59% increase in tail precision.
- Processed and optimized a dataset of 100,000+ songs from Last.fm through rigorous data cleaning and preprocessing, improving efficiency and readiness for analysis. Published findings as a conference paper, contributing valuable insights to the field of music recommendation systems.