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Aniruddha Kalkar

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Striving towards improving accessibility by solving challenges in vision-language domain as a diligent and ambitious engineer with 2+ years of software development experience and expertise in machine learning, Natural Language Processing, Computer Vision, Augmented Reality, Continuous Delivery and artificial intelligence.

Experience

METRANS Transportation Center, USC Sol Price School of Public Policy **Jan 2022 - Present**
Student Worker (Researcher) Los Angeles
- Developed 3 game scenes for a game using Unity to educate pre-teenage and teenage kids about public transportation in LA County.

Textify AI **Nov 2021- Dec 2021**
Natural Language Processing Intern Remote
- Optimized generative pre-trained (GPT-NEO) NLP model to auto-generate Natural language content for academic research proposals.
- Developed synonym suggestion enhancements to improve user sentence acceptance by 14.7%.

Dassault Systèmes Solutions Lab **June 2019-Jul 2021**
Software Engineering Specialist Pune, India
- Designed Revamped UI for the Lifecycle Management Service in the CI / CD Pipeline for the *3DEXPERIENCE* platform to increase service usage across organization by approx 63%.
- Developed UI / UX for the CI / CD Pipeline for the *3DEXPERIENCE* platform.
- Designed a prototype using NLP and Machine Learning to recommend QA testing scenarios using software requirements specification documents.
- Promoted to Software Engineering Specialist from R & D Development Associate position.

Tata Consultancy Services Research and Innovation **Dec 2018-Apr 2019**
Research Intern New Delhi, India
- Created Novel Metric to analyze Temporal Coherence of labels placed in videos for AR Applications.
- Introduced optical flow to give upto 50x Temporal Coherence improvement for the labels placed in the videos.
- Co-authored ”SmartOverlays” published in WACV 2020.

Publications

- **SmartOverlays: A Visual Saliency Driven Label Placement for Intelligent Human-Computer Interfaces**
  IEEE Winter Conference on Applications of Computer Vision (WACV).
  Authors: Srinidhi Hegde, Jitendra Maurya, Aniruddha Kalkar, Ramya Hebbalaguppe

Projects

UI Template Image to Code Generation **Aug 2018-Apr 2019**
- Constructed a template UI code generating system from input screenshots or photos of GUIs
- Reduced code writing time by average 23.4 mins per web page.

Face sketch To Photo-Realistic Image Generation **Jan 2018-Jun 2018**
- Spearheaded the creation of system to generate photo-realistic images from hand-drawn face sketches as well as predict age groups of people from sketches
- Achieved 77.65 % similarity with original image and 87.38% accuracy for age group prediction.

Driver Distraction Detection **Aug 2017-Dec 2017**
- Designed and created a driver distraction recognition and notification program based on a live video capture
- Attained 91.08% accuray for the 10 pre-determined distractions.

Education

Master of Science, Computer Science (Artificial Intelligence), University of Southern California **Aug 2021-May 2023**
GPA: 3.3 / 4.0
Bachelor of Technology, Computer Science and Engineering, Walchand College of Engineering **Aug 2015-May 2019**
GPA: 8.79 / 10.00

Technical Skills

Languages	Python, javascript, C/C++, Java, ASP.Net, HTML
Libraries & Frameworks	TensorFlow, Pytorch, TFLearn, OpenCV, Keras, pymongo, NLTK, scikit-learn, matplotlib, Flask, Django
Databases	MySQL, MongoDB