KANISHK SHAH

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Education

Dwarkadas J. Sanghvi College of Engineering   **Aug 2018 – May 2022**
*Bachelor of Engineering, Computer Engineering - **CGPA - 9.32/10***   *Mumbai, India*
Specialization: Artificial Intelligence/Machine Learning - CGPA - 9.88/10

Internships

Dimensionless Tech, Client: Adani Power ↗   **Apr 2021 – Jul 2021**
Computer Vision Intern   *Mumbai, India*
- Detection of flaws in solar panels from infrared drone imagery: **Improved MaP by 0.11** by incorporating an image processing pipeline involving automated rotation, noise removal, and normalization
- Achieved a 0.07 MaP increase to 0.81 by implementing multi-scaled YoloV4. Additionally, streamlined training for Yolov5, Efficient Nets, and Detectron 2 for future projects

ResoluteAI.in↗   **Mar 2021 – Jun 2021**
Machine Learning Intern   *Mumbai, India*
- Developed a system for the Real-time detection (60+ fps), classification, and segmentation of garments through a high-speed loom and improved future reliability by designing a data augmentation system
- AutoML based regression and data processing system to improve r2 score of estimated temperature from constituents by 0.21, from 0.34 to 0.56

Artenal ↗   **Sep 2020 – Feb 2021**
Machine Learning Intern   *Vancouver, Canada*
- Predictive Modelling of Real Estate growth in Vancouver based on 20 years of data, Analysis of Key Features
- Led a team to build Ensemble Recommendation engines for travel itineraries, jobs, and volunteering

peAR ↗   **Jan 2019 – Mar 2019**
App Developer and Multi-view Photogrammetry   *Mumbai, India*
- Assessed physics of lighting conditions and automated artefact removal of objects for the 3D renders
- Developing the Augmented Reality application in Unity3D, managing the APIs and cloud storage

Projects

Traffic Management System using Deep Reinforcement Learning - Capstone   **Apr 2022**
- Defines reinforcement learning to model traffic management, **40% faster** than fixed time systems. Ongoing work for including priority vehicles such as Ambulances.

Generative adversarial nets and super-resolution for celebrity images   **Aug 2020**
- Denoising images with up to 3% Gaussian noise, Generating reasonable fake faces with dcgans

Publications

- K. Shah and K. Deulkar, "Lightweight Apparel Classification with Residual and Inverted Residual Block based Architectures," 2021 IEEE Cloud Summit (Cloud Summit), 2021, pp. 57-62, doi: 10.1109/IEEECloudSummit52029.2021.00017.
- Ultrasound Nerve segmentation with attention mechanism: Presented at the International Conference on Advances in Computer Engineering and Communication Technology. Awaiting publication in a Scopus indexed journal

Technical Skills

Languages: Python, Java, C, C++, SQL, NoSQL, HTML/CSS, LaTeX
Developer Tools: VS Code, Android Studio, Sublime/Atom, Azure and other cloud platforms
Technologies/Frameworks: TensorFlow, PyTorch, Numpy, Pandas Flask, OpenCV, Linux, GitHub
Certifications: Machine Learning (Coursera), Deep Learning Specialization (Coursera)

Leadership and Achievements

- **Teaching Assistant** for course 'Introduction to data science' (Fall 2021)
- **DJ Unicode: Mentor** for college coding club for various software projects. (Fall 2020 - Spring 2022)
- DJ ACM: Co Info-tech head (Fall 2019 - Spring 2020)
- DJ Codestars: Teaching basic competitive coding to 70+ students (Fall 2019 - Spring 2020)