Ankit Kumar

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EDUCATION:

- NITTE Meenakshi Institute of Technology, Bangalore (2020) B.E. (Information Science & Eng.) CGPA: 8.52/10.0.
- Kendriya Vidyalaya, New Delhi, CBSE Board (2015) 12th (computer science) 87%.
- Kendriya Vidyalaya, Secunderabad, CBSE Board (2013) 10th Standard CGPA: 10.0/10.0.

EXPERIENCE:

Brillio LLC.

- *Senior Data Engineer* *Apr 2022 – Feb 2023,*
- *Data Engineer* *Sept 2020 – Mar 2022,*

– Ruffalo Noel Levitz: Performed ETL testing and Assisted development of Automated Data pipelines responsible for reducing file traversal from 24+ hours to just 5-6 hours. Hence, an increase in efficiency of 400% as compared to the legacy system.

NITTE Meenakshi Institute of Technology, Bengaluru

- *Research intern, Centre for Robotics Research* *Apr 2019 – Aug 2020,*

– Relevant coursework: Computer Vision, Digital Image & Video Processing and enhancement, Deep learning, Robotics.

POSITIONS OF RESPONSIBILITIES:

Toastmasters International

- *First Club President, Brillio Toastmaster's Club* *Aug 2022 - Mar 2023,*

– Addressed a cross-functional team of 7 members in new launched Club. in impressive conduction and management in a non-profit organization to increase participation, to improve other members' language and leadership skills.

NITTE Meenakshi Institute of Technology, Bengaluru

- *Head, Studio371-Club of Arts, Crafts & Décor, Cultural core committee* *June 2018 – Mar 2020,*

– Administered a cross-functional team of 150 + students towards the successful organization of Campus Décor and events for two years including the National level Techno-Cultural-Management fest ANAADYANTA for the years 2019 and 2020.

– Increasing student involvement and college event conduction frequency by 150% throughout the academic year.

TECHNICAL SKILLS:

- Domains and technologies: BI & Analytics, Computer vision, Deep Learning, Digital Image & Video Processing, Robotics.
- Programming languages: C, C++, LaTeX, Python, T-SQL.
- Tools and IDEs: Anaconda, JIRA, Microsoft Azure, MS Office, MS SQL Server, Spyder, Visual Studio Community, VS Code, Git.
- ML and computer vision libraries: OpenCV, Octave, python (PyAudioAnalysis, SciPy, NumPy, Scikit Learn, pandas), DL (DNN, CNN, TensorFlow, Keras).

HONOURS AND AWARDS:

- Brillio LLC:

– *Special Awards* *Oct 2022,*

– *Group Excellence Award* *Mar 2022,*

– *Bringing Smiles star volunteer* *Dec 2020,*

- *TEQIP: Innovation ideas & Research Grant:* A project Proposal on a COVID-19 screening and detection system was selected by Visveswaraya technological university. *Apr 2020,*
- *E-Yantra: National Level Robotics Competition (EYRC 2018)*- stage 2 shortlisting. *Mar 2020,*
- *E-Yantra: National Level Robotics Competition (EYRC 2018)*- 4th place finalist out of 7173 teams. *Mar 2019,*

INTERNATIONAL CONFERENCES:

- 5th international conference on Diabetes and Endocrinology: Title 'Analysis and optimization of Deep neural networks for screening and severity grading of Diabetic Retinopathy using Retinal Images. *Oct 2020,*

PAPER PUBLICATIONS:

- Authored IJETER chapter Volume 8. No. 7, July 2020, "Screening of Diabetic Retinopathy and its stages using Deep Neural Networks on Retinal optical Images"- https://doi.org/10.30534/ijeter/2020/155872020. Publisher: International Journal of Emerging Trends in Engineering Research (IJETER). *July 2020,*

PROJECTS AND VENTURES:

- **Amne-sea: An Ever-morphing Ocean (in progress)** *2022,*

- Co-Founded a start-up with a team of developers to build education-tech apps and games in Virtual Reality Space having breath-taking experiences.
- Planned future app launches, partnerships, and funding from Reliance JIO-Tesseract Project to boost up Jio glasses platform adoption.

- **COVID-19 screening and detection system: TEQIP Innovation ideas & Research Grant, VTU:** *2020,*

- Conceptualized the creation of COVID-19 detection using patient Chest CT-Scans using Deep Neural Networks and textural enhancements then performed statistical analysis on results.
- The project Proposal on the COVID-19 screening and detection system was selected by Visveswaraya technological university for the Technical Education Quality Improvement Programme grant, Govt of India.

- **Diabetic Retinopathy Detection & Grading System: Funded project under VGST, Govt of Karnataka:** 2020,

- Collected Patient's Retinal Images and processed them as input, using Deep Convolutional Neural Networks to grade disease severity.
- Investigated and obtained an accuracy of 73% for classifying disease severity and an accuracy of 97.46% to predict its presence.

- **Biped Patrol-Two Wheeled Self Balancing Robot, EYRC- IIT Bombay:** *2020,*

- This robot navigates in uneven terrains by balancing itself and can pick up and drop boxes using an electromagnet. The movement of this robot is controlled using a wireless Joystick Remote.
- Evaluated and Computed Mathematical Modelling for the system using the Euler-LaGrange-Ian technique, Simulation on Octave using pole placement and LQR controller, and Engineered Chassis designs which were Fabricated and tested.

- **Mocking Bot (A Robot Mimics Birds), EYRC-IIT Bombay:** *2019,*

- An audio file consisting of musical instruments' sounds is fed into the program which then detects the notes, their onsets, and instruments. Then communicates them to the Robotic Striking mechanisms. Using this, Bot will strike and play a combination of musical instruments at a remote location. Involves Audio Processing, Machine Learning, Designing instrument parts, and Striking mechanisms.
- Designed a custom striking mechanism having a response time of 400 milliseconds and a functioning rate of 8.7/10. Built the Instrument detection model after collecting Audio Files having 4 different instruments.