Vinayakk Garg

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EDUCATION

Bharati Vidyapeeth's College of Engineering (GGSIPU)　　　　New Delhi, India
Bachelor of Technology in Information Technology; GPA: 8.3/10.0　　　　*Expected May 2021*

Montfort Sr. Sec. School　　　　New Delhi, India
PCM, Computer Science; Percentage: 94.2　　　　*April 2003 - May 2017*

SKILLS

- **Languages**: Python, C, C++, HTML, CSS, JavaScript　　**Technologies**: Arduino, Raspberry Pi, Git, GitHub, ROS
- **Libraries**: Flask, TensorFlow, Keras, Scikit-Learn, Numpy, Pandas, Jupyter, OpenCV, Matplotlib, TKinter

PROFESSIONAL EXPERIENCE

SUEZ India　　　　New Delhi, India
Software Development Intern　　　　*June 2019 - Present*

- **Talking Network**: A utility tool to facilitate studying of pipeline diagrams by using voice feedback about parameters of pipelines.
  - Worked on a utility tool to promote usability and make readability of blueprint of pipeline networks easier.
  - Used Google Voice API to do text-to-speech conversion and fetched dynamically changing data in an Android App from a central server.

PROJECTS

- **ROS_PacBOT (ongoing)**: A Project developed using the Robotics Operating System. The bots are simulated using the Gazebo Simulator and trained to play the Pacman game using Reinforcement Learning techniques.
- **CraSOS**: CraSOS is a standalone device with the capabilities of accident prevention, detection and recovery.
  - Rider Rating on basis of speed of riding, braking intensity etc.
  - Camera on helmet used to click pictures of overspeeding and oddly behaving cars and their number plates.
  - On collision detection, SOS message(containing location, medical info) generated and sent to helpline numbers and 3 chosen emergency contact numbers.
  - Information broadcasted using BLE Beacon & nearby notifications to call for all help possible.
- **Real Time Object Detection**: Real time all as well as custom object detction on live feed from a USB webcam achieving 15-20 fps.
- **Who's Cuter**: A Cats VS Dogs classifier implemented using CNN from scratch with a test set accuracy of 81% on a dataset of 8000 training images.
- **Lane-Detection-App**: A lane lines detection software to determine drivable areas for autonomous robots.

VOLUNTEER EXPERIENCE

Head, RNIS, Developer Student Clubs by Google Developers - BVP　　　　New Delhi, India
Robotics and Intelligent Systems　　　　*May 2019 - Present*

- Heading a team of 10 technical executives and 300 student members
- Responsible for organising events and mentor workshops in the field of robotics and machine learning
- Organised and Mentored a Hardware Hackathon on Arduino Day 2018 with 40+ participating teams from 8 different colleges
- Judged an intra-college Ideathon event with 20+ participating teams.

ADDITIONAL EXPERIENCE & ACHIEVEMENTS

Finalist: SKYHACK　　　　August 2018
Qualified for the Finals among the top 5 teams nationally for the Hackathon organised by the Chhattisgarh Government in Raipur.　　*AIC@36Inc*

Third: Hack@BVP 2.0　　　　October 2018
Secured Third position at BVCOE's Hackathon organised by CSE department.　　*CSE DEPT, BVCOE*

Winner: Technovation at Innerve　　　　October 2017, 2018
Won the first position at IGDTUW's Techfest in the Ideathon event for two years consecutively　　*IGDTUW*

Second: Ideathon at Innovision　　　　October 2018
Won the second position at NSUT's Techfest in the Ideathon event.　　*E-Cell, NSUT*

Winner: Robo Soccer　　　　2017
Won the first position in Robo Soccer at IGDTUW, MSIT, BVCOE, CIC.　　*IGDTUW, MSIT, BVCOE, CIC*