{Chetan Chawla}

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EDUCATION

BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING
B.Tech, Electronics and Communication Engineering
2015-2019 (anticipated) | New Delhi
Cum. CGPA: 8.87

KENDRIYA VIDYALAYA TAGORE GARDEN
AISSCE, CBSE Board (XII) PCMB
Grad. 2015| New Delhi, India
Percentage - 95%

LINKS

linkedin.com/in/chetan-chawla
github.com/chetanchawla

COURSEWORK

TRAINEE
IIT Delhi: 12/2017-01/2018
- Neural Networks (ANNs, CNNs & RNNs)
- Deep Learning
- Music Generation
- Image Processing & Computer Vision

TRAINEE
Cyborg labs: 06/2016-07/2016
- Embedded Systems
- Introduction to PCB deigning
- Robotics

COURSE
Udacity and GDG : 01/2016-03/2016
- Android for Beginners

SKILLS

GENERAL
Time Management • Debugging • Innovative and Minimal Approach • Curiosity • Reciprocating Knowledge

TECHNOLOGIES
Neural Networks and Deep Learning • Robotics and Embedded Systems • Serial Communication • Android app development • Signal Processing • Digital Image Processing • Internet of Things • 3D Modelling • ROS

EXPERIENCE

IIT DELHI | Summer Research Intern
06/18 – 08/18 | New Delhi
- studying Pedestrian Trajectory Prediction from Moving Cameras in Vehicles to Prevent Collisions ahead of time and benchmarking Indian Multi class Dataset for detection & tracking

DEEP LEARNING SERIES | Teaching Coordinator
02/18 – 04/18 | BVCOE
- Conducted the series under ECE Dept., BVCOE and mentored the courseware to 50+ students along with project work.

RAS SB IEEE BVCOE | Chairperson
08/17 – Now | New Delhi
- Under Robotics and Automation Society, delivered workshops (50+), events, exhibitions etc & Mentoring 60+ students with the team and organized a National Technical exhibition & competition

IIT DELHI | CELESTINI PROJECT INDIA | Project Intern
06/17 - 07/17 | New Delhi
- A project to increase road safety on Indian Roads using Digital Image Processing on Raspberry Pi using computer vision/deep learning and Networking of cars

REES 52 LTD. | Social Media Marketing Intern
02/17 - 05/17 | New Delhi
- Outreach enhancemnt of the Robotics company

RESEARCH

POSTER - DRIZY: A COLLABORATIVE DRIVER ASSISTANCE SYSTEM
N. Garg, I. Janveja, D. Malhotra, C. Chawla , H. Bansal, P. Gupta, A. Chowdhery, P. Garg, B. Lall
Drizy:DRIve eaSY has 2 modules- Vehicle-to-Vehicle and Vehicle-to-Pedestrian Collision avoidance.The poster has been accepted in ACM MobiCom 2017 & paper submitted to ACM-IEEE IOTDI 2018.

AQUACOM: UNDERWATER VISIBLE LIGHT COMMUNICATION (2738 PUBLISHING NUMBER)
I. Janveja, C. Chawla, N. Garg, J. Parikh
Portable prototype which provides a better alternative to divers over acoustic & RF communication method by using VLC. The paper was accepted in Indiacom 2018(BVICAM)

AWARDS

PAUL BARAN YOUNG SCHOLARS CELESTINI PRIZE INDIA
11/2017
The team was awarded by Dr. Robert Tkach, Vice Chairman, Marconi Society along with Dr. Brejesh Lall,Head IIT Delhi and Dr. Aakanksha Chowdhery, Marconi Young Scholar (1500$ team award)

PROGRAMMING

Proficient

Python • C • Embedded C/Arduino • Blender • Android

Mediocre

MATLAB • SQL • VHDL • XML • TCL • Assembly • OpenCV(Library) • Tensorflow(Library) • Keras(library)

Familiar:

C++ • Java • Lua

HARDWARE

Raspberry Pi 3B • Arduino Boards • Firebird V • XBees 2.4C • CC3D Flight Controller • Texas Instruments MSP-430 • ATmega16 MCU

SOFTWARE

Arduino IDE • Android Studio • Blender • VRep • Proteus • XCTU • Wordpess • Audacity • Libre Pilot • Orcad Capture • AVR Studio • Atmel Studio • Sony Vegas Pro 14.0 • Adobe Photoshop CS6 • Processing • GNU Sim8085S • Mentor Graphics Pyxis • Mentor Graphics QuestaSim • TCL and NS2

LANGUAGES

- Hindi(Native Proficiency)
- English(C1 Proficiency)

ACTIVITIES

VOLUNTEERING

Core cultural volunteer at BVCOE-NSS(National Service Scheme)

EXTRA-CURRICULAR

Head at Aagaaz, The Music Society, BVCOE • Event Coordinator and Manager at- Robo Race and Soccer (2016), Robo Rugby (2017), Alumni Meet (2017), Fervour- The Annual Technical Fest BVPIEEE (2017 and 2018) and several workshops • Organizer at WIEHack- 24-Hour Women-only Development Hackathon • Pianist (PSR-E303 and PSR I425) and Back Vocalist in DhunsatV-The Band • Graphics Designing volunteer

HOBBIES

Astronomy enthusiast • Anime fan (Otaku)- Steins;gate and Code Geass being the favourites • Musical Instruments- Piano (Proficient) and Guitar (Intermediate) • FPS MMO Gaming- having more than 2500+ online experience • Sketching • Watching Science Fiction

1ST POSITION EVOTECH, BVEST

10/2017

Project presentation-competition organized by CSE Dept., BVCOE

4TH POSITION IN E-YANTRA ROBOTICS COMPETITION

03/2017

Organized by CS Dept., IIT Bombay, nationally. Space theme based. We competed with 160 teams in our sub-theme BV

POSITIONED IN TOP 1.5% IN XII IN ALL INDIA KVS

05/2015

Received congratulatory letter by MHRD, India as well.

PROJECTS

OVERTAKING ASSISTANCE SYSTEM

10/2018

System to assist drivers as they plan on overtaking the vehicles in front of them using vision and Cloud to Vehicle communication using CV & IOT.

FOS: FIRE SOS SYSTEM

09/2018

Multi modal real-time fire management system which gathers data from satellite data, crowd sourcing and dispatched UAVs for localization of people and fire on SOS through an Android App via cloud, effective path planning for escape and after-effect reduction using beacon system.

VIDEO ADVERTISEMENTS EFFECTIVENESS ANALYSIS

04/2018

It involved a multi-modal Deep Learning approach. The Audio Analysis and Action Recognition Modes gave a baseline accuracy for shortened dataset. Modes such as shot boundary detection makes up the next part.

MUSIC GENERATION USING DEEP LEARNING

01/2018

Used Recurrent Neural Networks (SRNs, LSTMs and GRUs). Developed as an experimental analysis of different techniques and achieved an accuracy of 54% on validation set, suggesting new sequence generation

INDIANIZED ROAD DATASET

11/17-05/18

Created an Indianized Dataset for detection and tracking benchmarking with 7 different classes and more than 60,000 frames.

SPACE ROBOTICS- FIREBIRD V SWARM ROBOTICS

03/2017

Interfaced 2 ATmega2560 based firebirds to traverse complex arena by shortest path finding, mechanism to strike on end points, re-routing for obstacles and following a sequence by Zigbee 2.4C Xbees serial comm.

PLANET TERRAIN ANALYZING AND MODELLING

03/2017

Modelled the terrain, rocks and the spacecraft and made logic bricks for game engine in Blender for sensory and actuated real-time cloning of a grid traversing firebird on blender.

REFERENCES

1. ABHISHEK GAGNEJA

Assistant Professor, BVCOE

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2. DR. KIRTI GUPTA

Head Of Department- CSE at BVCOE

Email Address: kirti.gupta@bharatividyapeeth.edu