

Manu Agarwal

97agarwalmanu@gmail.com | +91 8005940309

EDUCATION

IIT ROORKEE

B.TECH ELECTRICAL ENGINEERING

Cum. GPA: 7.47/10

LINKS

Github:// [97agarwalmanu](#)

LinkedIn:// [manu-agarwal-5195a6b7](#)

COURSEWORK

UNDERGRADUATE

Artificial Neural Networks and Applications

Data Mining For Business Intelligence

Optimization Techniques

General Economics

E-LEARNING

DeepLearning.AI Specialization

Tensorflow in Practice Specialization

SKILLS

PROGRAMMING

Java • Rust • Lua • PHP • C++ • Python •

Matlab

• \LaTeX • MySQL

TECHNOLOGIES

Tensorflow • Pytorch • Caffe • Git • Linux

• OpenCV • Springboot

COMMUNITY

• **Senior Member** : Data Science Group
[Link]

• **Core-Member** : Deep Learning Paper Discussion Group, holds meeting twice a week. Recently, presented Fast RCNN and Faster RCNN papers. [Link]

• **Member** : Himalayan Exploration Club

• **Member** : National Service Scheme

MINOR PROJECTS

• Variants of U-Net for Carvana Mask Challenge on Kaggle

• PPG Waveform Based Biometric Identification

• Intelligent Home Automation

EXPERIENCE

PAYU PAYMENTS PVT LTD | JULY 2018 - PRESENT

Senior Software Developer | Gurgaon, India

OnePayu Payment Dashboard

- Translation of business requirements into technical architecture. Researching the technologies, designing, and developing the product.

- Build services from scratch for microservice architecture with various monitoring features.

- Developed REST APIs for transaction summary and analytics.

- Added support for authorization using aspects, swagger documentation, exception handling using controller advice and multiple database transactions.

- Setup unit test frameworks, mock DBs and helped formulating policies for test standards to ensure code quality with high code coverage.

- Collaboration across DevOps, QA and Frontend.

OneCare PayuMoney • Designed and developed BuyerCare APIs for OneCare chatbot.

DSL Transaction Engine

- Documented core payment flow of PayuBiz Code for design of new payment flow.

- Handled Payment gateway integration for new transaction flow.

- Created Email and SMS notification template in Lua.

UURMI SYSTEMS (MATHWORKS) | MAY 2017 - JULY 2017

Research Intern | Hyderabad, India

Deep Cuboid Detection: Beyond Bounding 2D Boxes . A Deep Cuboid Detector which takes a consumer-quality RGB image of a cluttered scene and localizes all 3D cuboids. Contrary to classical approaches which fit a 3D model from low-level cues like corners, edges, and vanishing points for use in self-driving car representation in ROS as 3D Bounding Box.

PROJECTS

BRAIN TUMOR SEGMENTATION USING DEEP LEARNING May -

Aug 2018 | Supervised by Dr. G.N.Pillai | IIT Roorkee

- Trained a U-Net based 3D Fully CNN to segment tumor subregions and background from multimodal MRI scans of the brain.

- Our proposed method has achieved very good results on BraTS 2018 training and validation datasets.

- Published in Pre-Conference Proceedings of the 7th MICCAI BraTS Challenge.

[Link]

DIABETIC RETINOPATHY DIAGNOSIS USING DEEP LEARNING

Jan-Apr 2018 | Supervised by Dr. G.N.Pillai | IIT Roorkee

- Built a pipeline for segmentation of retinal lesions associated with diabetic retinopathy such as microaneurysms.

- Performed data augmentation by taking patches of images and then trained different segmentation algorithms such as UNet and MaskRCNN.

ACHIEVEMENTS

Selected among Top 24 teams in EXL EQ Analytics Competition 2017.

Rank 12 in Deep Learning Challenge 2017 on Hackerearth among 2200 teams.

Selected for KVPY (Kishore Vaigyanik Protsahan Yojna) fellowship award in 2014.

Won B-Plan Competition organized by EDC IITR(2014).

Secured All India rank 1191 in JEE-ADV 2014 from 1.5 lakh students.