

Praveen Balireddy

Github | Portfolio | LinkedIn
praveeniitkgp1994@gmail.com | +91-9002287313 | praveen.balireddy@students.iit.ac.in

EDUCATION

IIIT HYDERABAD

M.TECH. IN COMPUTER SCIENCE
ENGINEERING
Post Grad 2020 | Hyderabad, India
GPA: 9.59 / 10.0 (Dean's List)
Teaching Assistant - Operating
Systems

IIT KHARAGPUR

B.TECH. IN MECHANICAL
ENGINEERING
June 2016 | Kharagpur, India
GPA: 8.24 / 10.0

ACHIEVEMENTS

- **AIR-1069** IIT-JEE and **AIR-454** IIST
- Among Top **450 Students (Top 1%)** in Indian National Physics Olympiad
- **Fellowship award** for securing **AIR-342** in KVPY
- Awarded **Institute Blue** and **Best Outgoing Sports** at IIT Kharagpur
- **Dean's list** award for being in **top 5%** of batch at IIIT Hyderabad

SKILLS

LANGUAGES/Frameworks

C/C++(STL) • Python • Bash • SQL
• Keras • Tensorflow • Pytorch
• Javascript • Flask • HTML5 • CSS
• CUDA • MPI

TECHNOLOGIES

• Git • Docker • gRPC • Protobuf

OS/PLATFORMS

• Linux • Raspberry Pi • Arduino • Android

COURSEWORK

Operating Systems, Advanced Problem Solving, Scripting, Computer Vision, Statistical Methods in AI, Database Systems, Compilers

EXTRA-CURRICULAR

- **Secretary**, Technology Students Gymkhana, IIT Kharagpur
- **Captain**, Patel Hall Basketball team, IIT Kharagpur
- **Gold** and **Silver** in Cricket at Inter IIT Sports Meets
- Represented **Andhra Pradesh U-14** state cricket team

EXPERIENCE

SIEMENS TECHNOLOGY | SUMMER INTERN

May 2019 - July 2019 | Bengaluru, India

- **Energy demand Forecasting** for **Indian Railways** for Maharashtra region
- **Weld anomaly detection** in steel galvanization line
- Work involved implementation of **LSTMs, Autoencoders**

QUANTIUM ANALYTICS | ANALYST - FMCG

Jan 2017 - July 2018 | Hyderabad, India

- Worked for retail clients in Australia to answer business questions using **Woolworths** customers data
- Automated several dashboards from database querying to report generation

AMAZON | AREA MANGER - OUTBOUND

June 2016 - Oct 2016 | Hyderabad, India

PROJECTS

HOME AUTOMATION - IOT | C++, PYTHON, GRPC, PROTOBUF, ANDROID, ARDUINO, RASPBERRY PI, NRF24L01

Built an end-to-end home automation system which can be controlled via android app connected to Wi-Fi at home.

PASTRY - DISTRIBUTED HASH TABLE | C++, PROTOBUF

Built a distributed hash table with data replication across 3 other nodes. Lazy and timely repair to ensure routing and no data-loss along with log messages.

MINI TORRENT | C++, PTHREAD

Built a file sharing system with fallback synchronized multi-tracker system and parallel downloading. Implemented own RPC mechanism for data sharing.

SHELL (PROJECT MENTOR)

Linux shell with an extensive feature set similar to that of BASH. Required knowledge of signals, pipes, process handling and various other system calls.

DROPBOX | PYTHON, FLASK, JQUERY, BOOTSTRAP, SQLITE

Built a dropbox like web application with features like user authentication, download, upload, copy, move, share, etc.

HG COMPILER (IN PROGRESS) | C++, FLEX, BISON

Designed a new programming language(Hg) and its grammar. Built lexer, parser and constructed the Abstract Syntax Tree(AST).

LYRICS GENERATOR | PYTHON, KERAS, SELENIUM

Lyrics generation on a data set of 50000 Eng-Hindi translated songs created by scraping websites. Used Keras-TF framework to train RNN and LSTMs.

FLATLAND (IN PROGRESS) | PYTHON, TORCH

Flatland is a multi-agent reinforcement learning of Railway simulation on 2D grid. Used Dueling DQNs/A2C algorithms on Tree/Global Observations.

RESEARCH PAPER IMPLEMENTATIONS | PYTHON

- **WordSpotter**: Image retrieval in a document of images
- **GAN**: Implemented GAN on fashion MNIST dataset
- **NMT**: Language Translation using Seq-Seq/RNN-Encoder-Decoder models