

ANANYE PANDEY

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EDUCATION

Columbia University

New York, NY

MS in Electrical Engineering

Dec 2020

GPA: 3.57/4.

Select coursework: Machine and Deep Learning, Parallel Computing, Bayesian learning, Blockchain.

Manipal Institute of Technology

Manipal, KA, India

BTech in Electronics and Communication Engineering

Aug 2018

CGPA: 9.04/10.

Select coursework: Advanced Digital Signal Processing, Image and Speech Processing.

WORK EXPERIENCE

Columbia University

New York, NY

Research Assistant

Jun 2020 - Aug 2020

- Implemented various Computer Vision based Deep-Learning models and inference machines on TensorFlow, PyTorch and CUDA for object detection in real time.
- Collaborated with teammates of GPU Profiling team to determine software and best detection model based on profiling inference machines upon deployment, writing custom TensorRT functions to give us 25% greater inference speed.

OSRAM Opto Semiconductors

Regensburg, DE

Process Development Engineer

Aug 2018 - Jul 2019

- Improved production efficiency of Laser Diode Testing System by 8% on MATLAB and Python for optimization of laser far-field imaging system using ML algorithms such as clustering and logistic regression in production.
- Supervised new laser diode production and development by working with design engineers to relay heat dissipation artifacts so as to create laser diodes with 8-10% lower heat dissipation by modifying some surface lithography.

Student Intern

Mar 2018 - Jul 2018

- Installed, erected and commissioned a system to test laser diodes at high currents of 40 Amperes for production in supply line. Found optimizations in the machine and took the initiative of bringing a better machine to production.

SKILLS & CERTIFICATIONS

- Programming: Python, R, C/C++, Java, SQL, CUDA, OpenCL, MATLAB, Solidity, LabVIEW.
- Platforms and Packages: OpenCV, Keras, TensorFlow, PyTorch, TensorRT, Spark, DeepStream, Google Cloud Service, Amazon Web Services, AWS Sagemaker, Pandas, Scikit-learn, Git, Databricks.

SELECTED PROJECTS

Columbia University - Intelligent IOT Systems

Nov 2020

IOT Connected Smart Lock System

- Constructed an embedded Internet-of-Things connected lock system with C and MicroPython, controlled by an Android app to provide main-door security and convenient control over appliances in a house leveraging Google's Speech-to-Text API.
- Coordinated remotely with a team of 2 students to collect feedback and develop a robust secure system.

Women in Data Science Hackathon 2020

Aug 2020

ICU Mortality Prediction

- Forecasted multi-hospital ICU mortality rates within the first 24 hours of admission by stacking various Machine Learning algorithms such as Logistic Regression, Clustering, Random Forests and SVMs in Python.
- Secured an international top 20% with a test prediction accuracy of 90.6%.

Columbia University - Neural Networks and Deep Learning

Nov 2019

Street View Number Recognition

- Developed a modified Convolutional Neural Network (CNN) on Python to detect house numbers from street view images on TensorFlow on Python, predicted results at 92.46% was slightly greater than average human recognition.

Columbia University - Heterogenous Computing

Nov 2019

Parallel implementation of Principal Component Analysis

- Implemented CUDA kernels to calculate the Eigenvalues and Eigenvectors of any covariance matrix of any dataset using 1-sided Jacobi rotation method using CUDA and Python.