ANANYE PANDEY

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EDUCATION

- **Columbia University** — **New York, NY**
  MS in Electrical Engineering — Aug 2019 – Dec 2020
  GPA: 3.6/4
  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 2014 – Aug 2018
  CGPA: 9.04/10
  Select coursework: Advanced Digital Signal Processing, Image and Speech Processing

PROFESSIONAL EXPERIENCE

- **Columbia University** — **New York, NY**
  Research Assistant — Jun 2020 – Aug 2020
  - Implemented various Deep Learning models and inference machines on TensorFlow, PyTorch and TensorRT for object detection in real time through IoT.
  - Determined backend, software and best detection model based on profiling the inference machines upon deployment.
- **OSRAM Opto Semiconductors** — **Regensburg, DE**
  Process Development Engineer — Aug 2018 – Jul 2019
  - Improved production efficiency of "Laser Diode Testing System" by 8% using MATLAB and Python for optimization of laser far-field imaging system using Machine Learning in the production line.
  - Supervised new laser diode production and development.
- **OSRAM Opto Semiconductors** — **Regensburg, DE**
  Student Intern — Mar 2018 – Jul 2018
  - Developed a system to test laser diodes at high currents for production and implemented this system in the production line.

SELECTED PROJECTS

- **IOT Connected Smart Lock System** — **Columbia University**
  - Developed an embedded Internet-of-Things connected lock system using C and MicroPython, controlled by a smartphone app through voice commands, to provide main-door security and convenient control over appliances in the house.
- **Street View Number Recognition** — **Columbia University**
  - Developed a modified Convolutional Neural Network (CNN) on Python to detect house numbers from street view images using TensorFlow on Python.
  - Prediction results at 92.46% was just slightly greater than the human average.
- **ICU Mortality Prediction** — **2020**
  - Used the result of stacking various Machine Learning algorithms like Logistic Regression, Clustering, Random Forests and SVMs in Python to predict multi-hospital ICU mortality rates within the first 24 hours of admission.
  - Secured an international top 20% with a test prediction accuracy of 90.6%
- **Parallel implementation of Principal Component Analysis** — **Columbia University**
  - Implemented CUDA kernels to calculate the Eigenvalues and Eigenvectors of the covariance matrix of any dataset using the Jacobi rotation method using CUDA and Python.

SKILLS AND CERTIFICATIONS

- Python, C/C++, Java, SQL, CUDA, OpenCL, OpenCV, MATLAB, TensorFlow, PyTorch, TensorRT, DeepStream**,** Solidity, LabVIEW, R, Google Cloud Service, AWS