

# Pronoy Barua

<https://pronoy-barua.github.io/>  
[pronoy.barua25@gmail.com](mailto:pronoy.barua25@gmail.com)

## EDUCATION

### **BITS PILANI, GOA CAMPUS**

#### **M.ENG IN COMPUTER SCIENCE**

Expected Jun 2018 | Goa, India

Cum. GPA: 7.39 / 10.0

### **IMS ENGINEERING COLLEGE**

#### **B.TECH IN COMPUTER SCIENCE**

Grad. Jun 2015 | Uttar Pradesh, India

Cum. GPA: 64.1%

### **SOMERVILLE SCHOOL**

#### **XII (SCIENCE) - CBSE | 68.6%**

Grad. May 2010 | Noida, India

#### **X - CBSE | 83.8%**

Grad. May 2008 | Noida, India

## LINKS

Github:// [pronoy-barua](#)

LinkedIn:// [pronoybarua](#)

Twitter:// [@pronoy\\_93](#)

## COURSEWORK

### **GRADUATE**

Distributed Data Systems

Parallel Computing

Cloud Computing

Advanced Data Mining

Real Time Systems

### **UNDERGRADUATE**

Operating Systems

Computer Networks

Digital Image Processing

Machine Learning

Database Systems

## SKILLS

### **PROGRAMMING**

Over 2000 lines:

C++ • Python • JavaScript • Shell

MATLAB •  $\text{\LaTeX}$

Familiar:

MongoDB • Django • MySQL • Node.js

OpenCV • OpenCL • scikit-learn

Tools:

Docker • Vagrant • Ansible • git

jQuery • RabbitMQ • D3.js

## EXPERIENCE

### **QUALCOMM | SOFTWARE ENGINEERING INTERN**

Jan 2018 – Present | Hyderabad, India

- Built a solution to find encoding artifacts in videos. Artifacts were only reported if they were perceptible to the human eye. Encoder developers needed to test up to 1000 videos manually to check for artifacts. Our solution brought that number down to 50.
- Built a solution to detect camera tampering for surveillance cameras. Learned about parallel programming in OpenCL.

### **BITS PILANI | SOFTWARE ENGINEER (WEB)**

Jan 2017 – Apr 2017 | Goa, India

- Developed the front-end and back-end for the new SWD (Student Welfare Division) website for college.
- Maintained the old SWD website.

### **XTAGE TECHNOLOGIES | SOFTWARE ENGINEERING INTERN**

Jun 2015 – Jul 2015 | Noida, India

- Developed the front-end and back-end for data collection and report generation for Oxfam, India, an international NGO.
- Built a system to rank brands based on the occurrence of their logos in social media images. Responsible for research and prototyping. Explored computer vision algorithms for object detection.

## PROJECTS

### **EXTRACTION OF SELECTED TEXT FROM SCANNED DOCUMENTS**

Sep 2014 – Mar 2015 | IMS Eng. College

Designed a system to perform OCR on selected regions of image. Learned about various digital image processing and machine learning techniques.

### **BATCH JOB EXECUTOR**

Oct 2016 | BITS Pilani, Goa Campus

Designed a batch job executor in C which executed commands from a file sequentially. The goal of the project was to improve understanding of processes. Added support for pipes and redirection.

### **DISTRIBUTED CLUSTERING ALGORITHM**

Feb 2017 – Apr 2017 | BITS Pilani, Goa Campus

Implemented a parallel version of the k-means clustering algorithm. Theoretical and empirical analysis of the algorithm was conducted.

## AWARDS

2015 5th Project presentation at inaugural ACM chapter, IMSEC

2012 1st Technical presentation on HTML5, IMSEC

## EXTRA CURRICULAR ACTIVITIES

2010 Runner-up District Level Junior Football Championship

2009 2nd Inter-School Western Music Competition - Lead Pianist/Keyboardist