

Mousam Roy

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EDUCATION

INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR
DUAL DEGREE (B.TECH+M.TECH) IN
COMPUTER SCIENCE & ENGG.
Expected Aug 2019 | Kharagpur, India
CGPA: 9.33/10

HEM SHEELA MODEL SCHOOL
CENTRAL BOARD OF SECONDARY
EDUCATION, NEW DELHI
Senior Secondary: May 2014
Aggregate: 96.4%
Secondary: May 2012
CGPA: 10/10

INTERESTS

Software Engineering
Programming Languages
Algorithms

RELEVANT COURSES

Algorithms I, II
Software Engineering
Database Management Systems
Parallel and Distributed Algorithms
Operating Systems
Machine Learning
Smartphone Computing and Applications
Computer Networks
Compilers
Programming and Data Structures

SKILLS

PROGRAMMING & TOOLS

Proficient:

C++ • Java • Python

Familiar:

Scala • JavaScript • MySQL • Bash

LINKS

LinkedIn:// [mousam05](#)

Github:// [mousam05](#)

EXPERIENCE

BLOOMBERG LP | SOFTWARE ENGINEER INTERN, MAY-AUG 2018
London, UK

Worked in the Trading & Analytics department:

- **Integrated two services** to make one fetch data from another, thus eliminating the need to maintain a separate internal database for each service
- Wrote extensive unit and integration tests for new code, and tweaked the UI to be consistent with backend changes, gaining **full-stack experience**

VIPER PROJECT | RESEARCH ENGINEER INTERN, DEPARTMENT OF
COMPUTER SCIENCE, ETH ZÜRICH, MAY-JUL 2017
Zürich, Switzerland

Worked on the Viper verification infrastructure:

- **Improved reliability** of Viper abstract syntax trees (ASTs) by designing a framework for implementing consistency checks in an **efficient, crash-resistant** manner with user-friendly error reporting, with a **3% speedup in runtime**
- Designed and implemented **lexical scopes** in the Viper language

NATIONAL DIGITAL LIBRARY | SOFTWARE DEVELOPER INTERN,
MINISTRY OF HUMAN RESOURCE DEVELOPMENT, INDIA, MAY-JUL 2016
Kharagpur, India

- **Achieved 60% faster data sync** from remote repositories through **incremental harvesting**, and **automated** a backup generation routine
- Created a **graphical frontend** for rule-based curation and subsequent ingestion of library meta-data into content management server

ACHIEVEMENTS

- Currently in top **10 percentile** of peer batch by CGPA
- JEE 2014 : Ranked **341** and **464** among 1.3 million candidates across India, in Advanced and Main levels of engineering entrance exam

SELECTED PROJECTS

MOTION CLASSIFICATION IN INDIAN CLASSICAL DANCE |
BACHELOR PROJECT, JAN-APR 2018

Supervised by Professor Partha Pratim Das, CSE, IIT Kharagpur

- Built a **nearest-neighbour classification system** to label motions in a dance performance into one out of many pre-defined labels
- Experimented with various methods of calculating the nearest neighbour, including assigning different static weights to skeletal joints, as well as computing weights automatically

ARTISTIC IMAGE RENDERING | MACHINE LEARNING, AUG-NOV 2016
Supervised by Professor Pabitra Mitra, CSE, IIT Kharagpur

- Created a model using CNNs (Convolutional Neural Networks) to **separate content from style in images** (and videos), and to apply a chosen style or combination of styles to an input image
- Implemented the VGG convNet model using Google's TensorFlow library