

Sushovan Mandal, B.Tech student, Computer Sc. & Engg., IIT Kharagpur

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Passionate **developer and technologist** with an eye for aesthetics. Eager to **learn and improve**. Experienced in **Python** based web application framework **Django**. Would love to get involved in **Machine Learning** projects. Have hobby in Cryptocurrency. Fluent in English, Hindi, Bengali.

Education

Machine Learning Nanodegree - udacity.com

FEBRUARY 2016 - expected AUGUST 2016

Bachelor of Technology - Computer Science & Engineering, IIT Kharagpur

Expected DECEMBER 2016

CGPA - 6.7 till last semester

AISSCE 2010, CBSE 10+2 - DAV Model School, Durgapur

All India Senior School Certificate Examination, **Science with Computer Science** - 89%.

AISSE 2008, CBSE 10 - DAV Public School, Midnapore

All India Senior School Examination, Board - 88.4%.

Experience

National Digital Library, IIT Kharagpur - Project Student, B.Tech Project

FEBRUARY 2015 - DECEMBER 2016

[National Digital Library](#) is pilot project by [MHRD, India](#) to develop a framework of virtual repository of learning resources with a single-window search facility.

- ❖ **Engineered** prototype sister web portal for searching and accessing yesteryear Question Papers of Board Exams and Entrance Examinations, single-handedly.
 - Used **Django Frameworks** and **MariaDB** database backend.
- ❖ Implemented **Python** program for **Information Retrieval** from educative content files for **automation** of metadata creation for indexing the files in the Digital Library.
 - Used Open-source Python packages like lxml, ebooklib.
- ❖ Achieved **automation** of conversion of a large batch of metadata between formats.

SAP Labs India, Bangalore - Intern

MAY 2013 - JULY 2013

Interned at **Testing Automation** Department at SAP's largest Research and Development center outside its headquarters in Germany, in collaboration with batchmate, with Proprietary software.

- ❖ Integrated SAP tool with third-party software suite using **C# prototype Windows application**.
- ❖ Experimented on prototype Android application **for testing mobile apps**.

E-learning Portal thelearningpoint.net, work from home - Freelancer

JUNE 2012 - JULY 2012

- ❖ **Designed and developed** visual simulations of mechanics topics including Simple Harmonic Motion using Processing libraries and IDE, **proportional to real-time motion characteristics**, for e-learning purposes.

Autonomous Ground Vehicle Research Group, IIT Kharagpur - Junior Developer

AUGUST 2011 - MARCH 2013

Team [AGV](#) is **multidisciplinary research & development group** in the field of **Robotics & Artificial Intelligence** aimed at building fully operational self-driving car.

- ❖ Acquainted with various **Artificial Intelligence** techniques A* search, worldview of robot by Simultaneous Location and Mapping (SLAM), 3D point cloud from LIDAR, stereoscopic vision.
- ❖ Contributed to SONAR and GPS sensor modules for **path-planning and obstacle avoidance** in Version 1 of bot, Eklavya, team's entry to IGVC '12, Michigan, USA.
- ❖ Collaborated on **simulating motion dynamics** using Gazebo Robotics simulator and Robot Operating System (ROS) for Version 2 of bot participating in IGVC '13 and for Lunar Autonomous Rover prototype chassis for Team Indus, Google Lunar Xprize finalist.

Projects

Academic Projects - IIT Kharagpur

- ❖ Built prototype Online Course System website using **Django** and **MariaDB**.
- ❖ Used **Hadoop and MapReduce** to **extract statistics** about user behaviour from online discussion forum data.
- ❖ Used **C++ 11** for **Computer Graphics** and **C** for **Operating System** Projects.

Robocop, Robotix '11 - Kshitij'11. Techno-Management fest of IIT Kharagpur

- ❖ Won **Best Freshers' Award** with 3 member team in Robotics Event implementing **Image Processing**.
- ❖ Used **OpenCV** libraries in VC++ Project, run on a laptop driving Differential Drive of the bot.

Skills

Python, C, C++ 11, Django Frameworks, Java, SQL; prefer **Linux** environment & **terminal**; version control:-**git, github**; Integrated Development Environments:- **Eclipse, IntelliJ IDEA & derivatives, Microsoft Visual Studio**; advanced code editors:- **Sublime, Atom**; Any Office Suite; **Open-source libraries**:- Python packages, OpenCV, ROS.

Relevant Subjects Taken

Information retrieval, Database Management Systems, Computer Graphics, Social Computing, Operating systems, Software Engineering, Algorithms, Data Structures, Automata Theory, git and github.

Management of Growth Ventures, Introduction to Nanoscience & Technology, Linear Algebra, Probability and Statistics, Computer Application in Aerospace Engineering.