Sushovan Mandal

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

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EXPERIENCE

SAP Labs India, Bangalore — *Intern*

MAY 2013 - JULY 2013

Developed **Prototype mobile & desktop application** in **Testing Automation** on **Proprietary** software technologies, in a **2 member team**.

thelearningpoint.net, work-from-home — *Freelancer*

JUNE 2012 - JULY 2012

Designed and developed **Java interactive visualizations** (applets using **Processing libraries** and environment) for **e-learning** purposes.

Created the visual simulations proportional to real-time motion characteristics for a few basic mechanics topics including those for the Simple Harmonic Motion.

Autonomous Ground Vehicle, IIT Kharagpur — *Junior Developer*

AUGUST 2011 - MARCH 2013

- * worked as a part of an inter-disciplinary research & development team in the field of Robotics & Artificial Intelligence (it is now <u>Auro Robotics</u>).
- worked towards implementation of various AI search techniques, S.L.A.M. world-view of the vehicle, and other metrics vis-a-vis an autonomous ground vehicle.
- worked on AVR programming for SONAR and other sensor suites using a VC++ (Visual Studio) program for path-planning and obstacle-avoidance for the team's entry, Eklavya v1.0, to IGVC 2012 held in Michigan, USA.
- implemented socket programming and Gazebo 3D environment simulator in a) Eklavya v2.0 for participating in IGVC 2013 and b) Lunar Autonomous Rover prototype for <u>Team Indus</u>.

Intaglio' 12, IIM Calcutta — *Intern*

Worked in a 2 member team to build an online Business Simulation Game portal using HTML, CSS and PHP.

SKILLS

Python, C, C++ 11 , Java, SQL, Django Frameworks

compilers & interpreters(
gcc/g++, python, linux
shell/bash)

version control(git, github)

Integrated Development
Environments(Eclipse,
IntelliJ IDEA & derivatives,
Microsoft Visual Studio,
Netbeans), advanced editors
(Sublime, Atom), Microsoft
& other Open Source Office
Suite

LINUX / UNIX based OS : Archlinux, Ubuntu and others

Open-source libraries like **python & perl libraries**, **OpenCV**, **ROS**.

LANGUAGES

English, Hindi, Bengali

EDUCATION

IIT Kharagpur, W.B. — B.Tech

JULY 2010 - DECEMBER 2016

Undergraduate Student of **Computer Science & Engineering** Department. CGPA - 6.7 (till last semester)

D.A.V. Model School, Durgapur — 10+2

MAY 2008 - MARCH 2010

CBSE, All India Senior School Certificate Examination (**Science with Computer Science**) – 89%.

D.A.V. Public School, Midnapore — *till std 10*

MAY 1998 - MARCH 2008

CBSE, All India Senior School Examination - 88.4% (Board).

PROJECTS

B.Tech Project — IIT Kharagpur, ongoing

Created **Python** programs for work related to **National Digital Library**, IIT Kharagpur, by MHRD, India:

- Script to automate conversion of a large batch of metadata from MARC 21 to SIP format.
- Program to retrieve metadata automatically from educative content files like ebooks, articles, etc.

Academic Projects — *IIT Kharaqpur*

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

Robocop, Robotix' 11 — Kshitij' 11, the Techno-management Fest of IIT Kharagpur

- Worked in a 3 member team winning 'Best Freshers' Award' in Image Processing 'Robocop'.
- Image Processing was done in a VC++ Visual Studio project using OpenCV libraries.
- Built a robot powered by a laptop, serially connected (UART) to an Atmega32 microprocessor controlling a motor-driver circuit implementing a differential drive.

Extra-Curricular ACTIVITIES

Volunteered at **NSS** in the capacity of **Deputy Group Leader**.

- >> **Lead a team** of volunteers in the **renovation** work of a **village school**.
- >> Awarded for being one of the best volunteers

Participated in IIT Kharagpur's Inter Hall Activities such as

- >> Technical events:
 Opensoft, Product Design,
 Hardware Modelling, Ad
 Design
- >> Social & Cultural events:

 Sketching, Hindi/Bengali

 Dramatics

Participated in outdoor group activities like **road trips, mountain trekking**

Volunteered in Shaurya' 10, IIT Kharagpur's Sports Fest