Pushkar Godbole
Aerospace Engineering
Indian Institute of Technology, Bombay

09D01005
UG Third Year(Dual Degree)
Male
DOB: 19/06/1991

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	7.94
Intermediate/+2	Bhavans College, Andheri-Mumbai	Bhavans College, Andheri-Mumbai	2009	88.17
Matriculation	N.G.K. Gokhale High School, Borivali-Mumbai	N.G.K. Gokhale High School, Borivali-Mumbai	2007	88.00

PUBLICATIONS

- Jhonny Jha, Pushkar Godbole et al., "*Design of data acquisition, collection, processing and archiving system for Pratham*", **International Astronautical Congress 2011 - Cape Town, South Africa**.

POSITIONS

- **IIT-Bombay student satellite (Pratham) – Core group [August 2010 – till date]** *(third semester)*

  Working in the Communications sub-system.

  Major contributions :
  - Assisted in successfully setting up the IITB ground station.
  - Effectuated the payload data acquisition and interpretation at the IITB ground station.
  - Implementing database management for central server (IITB) and all ground stations.

- **Co-ordinator Electronics club IIT-Bombay [September 2010 – April 2011]***(Second year)*

  One amongst the 10 co-ordinators of Electronics club
  - Electronics club Web site manager : Developed and managed the website
  - Facilitated smooth execution of the events under Electronics club
  - Conceptualized, publicised and successfully executed electronics events
  - Single-handedly conducted the "Arduino coding contest – for freshers" which received a huge response of over 120 participants.

INTERNSHIPS

- **Institute de Physique du Globe de Paris, France [May – July 2011]** *(Second year – Summer Internship)*
  - Interned under Prof. Philippe Lognonne and Pierdavide Coisson as part of collaboration between IIT -Bombay and IPGP - France.
  - Conceptualized the detailed design for data management of the payload data at the central server and all ground stations for Pratham and similar satellites.
  - Work majorly involved building the data structure and flow skeleton, test case generation and brain-storming to find the most suited solution.

PROJECTS

- **Engineering design – Course project [July – November 2010]***(third semester)*

  Worked on a course project involving engineering-design and conceptualisation of a "portable device capable of displaying analog signals graphically" – An affordable, miniaturized substitute for a CRO. Project requirements included :
  - Identifying need & stakeholders
  - Generating requirements and constraints
  - Finding multiple solutions and checking their viability on multiple domains
  - Finalising and quantizing the solution

- **Supervised learning** **[July – November 2010]***(third semester)*

Completed a departmental project under Prof. P.Ramachandran. Work involved programming using PYTHON. Project was based on "FlightGear", an open source flight simulator.
Project aspects in order of significance –

- Capturing the data elements from the simulator (e.g. Altitude, air speed, pitch, yaw, roll etc)
- Storing these data elements using comprehensive data structures
- Graphically representing this data in a dynamic manner
- Setting up an all inclusive GUI with embedded functionalities

- **IIT-Bombay Electronics Club Summer Project** **[May – July 2010]***(Summer vacation-First year)*

- Built a micro-controller based autonomous "Metal detector bot" that would sweep a pre-defined grid and detect metal pieces.
- Constructed the metal detector and implemented the metal detection and navigation algorithm.

ADDITIONAL LEARNING

- **Advanced Programming in C++ : CEP IIT-Bombay** **[June 2010]***(Summer vacation-First year)*

By Prof. S. Biswas (CSE-IITB). Completed the course with a "GOOD" grade.
Contents : Memory allocation, Templates, Data structures – (Linked lists, Stacks, Queues, Binary trees), OOP, Classes, Inheritance, Shell scripting.

- **Software development techniques for engineers and scientists** **[July – November 2011]***(fifth semester)*

Honours course - By Prof. M. Belur (EE-IITB) and Prof. P. Ramchandran (Aero-IITB)
Contents : Advanced Python, bash scripting, LATEX, Version control, scalability.

SOFTWARE SKILLS

- **Languages :** C, C++, Python, php, bash.
- **Softwares :** Matlab, SciLab, Lab-View.
- **Operating Systems :** UBUNTU(Linux), Windows.

RELEVANT COURSES

- **MA 105** **:** Calculus
- **MA 106** **:** Linear algebra
- **MA 108, 207** **:** Differential equations I, II
- **MA 214** **:** Introduction to numerical analysis
- **IC 102** **:** Data analysis and interpretation
- **HS 101** **:** Economics

ACADEMIC ACHIEVEMENTS

- Maharashtra 267th : AIEEE - 09 **[2009]**
- Scored 326/450 in BIT-SAT - 09 **[2009]**
- 98/100 in Sanskrit language in Matriculation : Mumbai regional topper. **[2007]**
- Ranked 27th in the merit list of BTS (Bombay talent search) **[2006]**
- Proficiency certificate in Mathematics in State level "Ganit Pradnya" examination **[2005]**
- Ranked 49th /454 in merit list of Maharashtra state scholarship examination **[2004]**
- Silver medal in Homi Bhabha junior scientist examination **[2003]**
- Gold medal in R-ward science project organized by Bombay Municipal Corporation **[2003]**

EXTRA-CURICULAR ACTIVITIES

- NSO Football IIT-Bombay
- "Uttama puraskar" for drawing in SANSKRITI – National exhibition of art for children
- Drawings selected for Kalashree kala mahavidyalay's USA and UK exhibitions.
- Merit certificate in International drawing competition by "Wonder World Art " - Hyderabad

INTERESTS

Data analysis and interpretation, Data management, Application programming, Algorithm development.