SHUBHAM SHUKLA

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Computer Science and Engineering
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Degree	Institute	CPI/ %	Year
B.Tech. Computer Science and Engineering	Indian Institute of Technology Guwahati	7.61	2016
Senior Secondary	Rajeev Gandhi Hr. Sc. School Bhopal	89.2	2012
Matriculation	Delhi Public School Bhopal	91.2	2010

EXPERIENCES

Quadcopter, Intern at Indian Institute of Technology Guwahati　　　　　May-July 15
Prof. S.B. Nair, Professor, Dept. of CSE, IIT Guwahati

Control Theory, Robotics, Arduino, Android, Matlab

- Long-term aim: Give the Quadcopter, AI and networking capabilities, making it part of a Cyber-Physical System.
- Worked on the flight controller, improving flight stability.
- Made an Android app for tuning flight parameters, plotting and logging flight data.

PROJECTS

Pintos　　　　　**AUG-DEC 14**
Prof. Samit Bhattacharya and Prof. T. Venkatesh, Assistant Professor, Dept. of CSE, IIT Guwahati

Operating System Concepts, Unit Testing - C

- Worked to build upon an Instructional OS named Pintos, implementing features like Threading, Process Synchronization, System Calls, Virtual Memory, Paging, and File System.

Autog　　　　　**DEC 14-MAR 15**
Dr. K.V. Srikanth, Assistant Professor, Dept. of Mathematics, IIT Guwahati

Multithreading, Synchronization, Parsing, Qt - C++

- Aims to increase the productivity of the grader. It takes LaTeX files(with scanned answer page embedded inside) as input and provides the user with a nice interface to put comments and marks. It updates the LaTeX files with the user input, compiles it and displays the output PDF live.
- Distributed through launchpad for ubuntu(*Repository link*). Also tested to work in Windows and Mac.

Compiler　　　　　**JAN-APR 15**
Prof. Benny George and Prof. Arijit Sur, Assistant Professor, Dept. of CSE, IIT Guwahati

Lexical analysis(Flex), Syntax analysis(Bison),
Semantic analysis, Machine code generation - C, C++

- Designed a programming language facilitating integer and boolean data types, static scoping, arithmetic and logic operations, conditional statements, loops, nesting, functions and recursion.
- Made a compiler generating MIPS machine code for the same.

Online Trading　　　　　**MAR-APR 14**
Dr. P. K. Das, Associate Professor, Dept. of CSE, IIT Guwahati

Twitter Bootstrap, Database, Ajax, Android -
PHP, MySQL, JavaScript, jQuery, CSS

- Worked on building an online retail website facilitating buy, sell, auction, cart, invoice, recommendations, tags, advertisements, watch list, notifications, wallet, search and filters.
- It also featured a basic android app.

IVS (IITG Versioning System)　　　　　**MAR-APR 15**
Prof. Amit Awekar, Assistant Professor, Dept. of CSE, IIT Guwahati

Version Control System, MongoDB, HTTP Server - Python

- Made a primitive version of git, facilitating staging, commit, branching, rollback, push, pull and clone.
- Made a server for hosting IVS repositories facilitating user authentication, repository sharing, push, pull and clone.

TECHNICAL SKILLS

- Compiled Languages: C, C++, Basics of Java.
- Web Development: HTML, CSS, JavaScript, JQuery, PHP.
- Database: MySQL, phpMyAdmin, MongoDB.
- Scripting Languages : Python, Bash.
- Logic Programming language: Basics of Prolog.
- Tools: Vim/Neovim, Xmonad, Git.
- Environments: Qt, Android Studio, Microsoft Visual Studio, Eclipse, NetBeans, Web2Py.
- Platforms: Microsoft Windows, Linux, Android.

Relevant Courses

- Operating Systems(Theory and Lab).
- Algorithms.
- Data Structures(Theory and Lab).
- Database Management Systems(Theory and Lab).
- Computer Networks.
- Distributed Systems.
- Software Engineering(Theory and Lab).

ACHIEVEMENTS

- The project Autog is being actively used in mathematics department. It has been used in grading 50,000 pages till date. It hasn't crashed or became unresponsive once. It has doubled the productivity of the users.(User testimony available).
- Ranked in Top 0.3% amongst 0.5 million aspirants in IIT-JEE 2012.