# Prasad Kshirsagar

Computer Science & Engineering Indian Institute of Technology, Ropar

UG Second Year 2016CSB1041

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# **Academic Qualifications**

Examination	University	Institute	Year	CPI/%
Graduation	IIT Ropar	IIT Ropar	2016-Present	8.29/10
Intermediate/+2	HSC Maharashtra	Vasantrao Naik College, Aurangabad	2015-2016	86.67%
Matriculation	SSC Maharashtra	Yogeshwari Vidyalaya, Ambajogai	2013-2014	97.80%

#### **Scholastic Achievements**

- All India Rank 1570 in JEE Advanced 2016 among the 2 Lakh shortlisted candidates.
- Secured All India Rank 11 in Indian Institute for Studies in Mathematics (IISMA 2013).
- Among the **top 0.3%** of the 1.5 million applicants in **JEE Mains 2016**.
- Awarded Certificate Of Merit and Gold Medal in National Science Talent Search Examination(NSTSE 2014) for having institute and City Rank 1.
- Secured **State Rank 5** in *Maharashtra Talent Search Examination* **MTSE(2014)** conducted by Wadia College, Pune and Government of Maharashtra.
- Secured Rank 21 in Maharashtra Common Entrance Test (MHTCET 2016) conducted by Government of Maharashtra.

## **Internship Experience**

• Web Development Intern, UVSofts Technologies.

(July'17- August'17)

Mentor: Er. Sanjeev Soni, Head of Development Department.

- o Designed and modified the responsive website of the company.
- o Designed the database schema from scratch and used MySQL as backend database.
- o Learned the prototype languages like javascript, php and successfully used them to build the site.

#### **Key Projects**

• Secure User Authentication

(June 2017)

- Created an application using C which creates a database containing "usernames" and "keys" which were created by the corresponding password.
- Passwords are converted into a set of numbers using the ASCII values of alphabets of the string and those set of numbers were stored in the database as "keys".
- Even in case if someone has the database, he/she wont be able to crack the password out of it.

• SIMD Coprocessor

(March 2017)

Guide: Prof. Neeraj Goel, Department of Computer Science.

- Designed a Coprocessor with the addition of instructions in the Simple Risc Simulator.
- Constructed it in such a way that it can run parallelly with the main processor without disturbing the instructions of main processor.
- o Added **pipelining** to make it more efficient in terms of cycles.

Cache Design

(October 2017)

Guide: Prof. Neeraj Goel, Department of Computer Science.

- Implemented 8KB sized cache containing main level(L1) along with other sublevels(L2,L3).
- o Analyzed the number of hits, misses and writebacks on a large chunk of data.
- Studied the various aspects of fast memory action.

## • Home Automation

(November 2017)

Guide: Prof. Rohit Sharma, Department of Electrical Engineering.

- o Designed an online platform to control electrical appliances remotely.
- o Achieved this by using ethernet shield on Arduino Uno.

## **Technical Skills**

- Computer Languages/Scripts: C, C++, Python, HTML5, CSS3, JAVA, JavaScript, PHP, MYSQL, XML.
- Operating Systems: Linux(Ubuntu), Windows.
- Version Control: GitHub.
- Tools: MATLAB, Eclipse, LATEX, NetBeans IDE, Adobe Photoshop.

#### Relevant CourseWork

- Data Structures, Computer Architecture, Discrete Mathematics, Real Analysis, Programming Paradigms and Pragmatics, Digital Electronics, Quantum Physics, Linear Algebra, Fuzzy Logic, Probability Theory.
- Algorithmic Toolbox (Coursera), Algorithms 1 (Coursera), Machine Learning (Coursera), JavaScript Basics (Udacity), Introduction to HTML and CSS (Coursera).

## **Extra-Curricular Activities**

- Start-up: Currently working on my own start-up which will help people get vehicles on rent for very cheap prices.
- Web-Designing: Designed three official websites of IIT Ropar, March17 April17.
- Won BrainVista (a puzzling competition) in the event during ZeitGeist, Cultural fest of IIT ROPAR.
- Runner up in Inter-Hostel Chess Tournament(2016) at IIT ROPAR.
- Strengths: Good Teamwork, Good Communication Skills, Like To Learn New Topics, Logical Approach, Optimism.