

# SOUMEN BASU

+91- 8882104835/ 9051501506

mail.basu.s@gmail.com

## Academics

- **M.Tech** in *Computer Science & Engineering*, **IIT Delhi** (GPA: **8.383/10**) (2013-2015)
- **B.E.(Hons)** in *Information Technology*, **BESU Shibpur (IEST)** (**79.62%**) (2008-2012)
- **All India Rank 99** among **224160** candidates in **GATE-2013**, Computer Science

## Research Projects

- **Randomized Rounding using Random Walks** (For solving Integer Linear Programs)

**Supervisor:** Prof. Sandeep Sen, IIT Delhi

**Details:** Many combinatorial optimization problems can be mapped to ILP. Since this problem is NP-Hard, randomization is often used to find near-optimal approximate solutions in polynomial time. CWe worked on towards the development of randomized rounding algorithm. Main objective is to obtain better rounding with low error bounds.

- **Design of test simulator for Digital Microfluidic Biochips**

**Supervisor:** Dr. Hafizur Rahman & Mr. Pranab Roy, BESU Shibpur

**Details:** Microfluidic Biochips offer promising platform for parallel DNA analysis, automated drug discovery etc. The main focus of the work was on improved techniques for functional testing of Biochips.

## Course Projects

- **Automated Document Classifier:** Developed a Bayesian Classifier that could classify 8 different types of news paper articles. It achieved up to 96% accuracy.
- **Feature Selection tool for classification:** Avoiding the redundant features is highly important in classifications. This tool uses Particle Swarm and Genetic Algorithm techniques to select good features. Classification using the selected features achieved accuracy upto 91%.
- **User Level Thread Library:** Supports all the standard methods that a user level thread library offers. Garbage collector and Round-Robin scheduler were also included.
- **Lexical Analyzer tool:** Produces lexemes for a given input program and grammar rules.

## Work Experience

- **Adobe Systems India Pvt Ltd (Member of Technical Staff):** Current employment from July-2015.
- **Samsung India Electronics Pvt Ltd(Engineer, 2012):** Smart phones Research Division. Handled following responsibilities -
  1. Analyzing modules for calling interface and deployment of solutions for malfunctioning units.
  2. Evaluation of performance and behavioral sanity of call interface for different products.

## Technical Skills

- Proficient in C/C++; familiar with Python, Java, OpenMP
- MATLAB, Eclipse, GIT/SVN(versioning software), VMPlayer

## Areas of Interest

- Algorithmic Solutions
- Machine Learning & Analytics
- High Performance Computing

## Hobbies

- Photography, Literature, Travel, Socializing