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# AKSH GAUTAM

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## EDUCATION

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**Indian Institute of Technology  
Mandi**

**Himachal Pradesh, India**

**Aug 2015-Jun 2019**

- **B.Tech in Computer Science and Engineering, CGPA: 7.57**
- **Relevant Coursework:** Algorithm, Data Structures, Operating Systems, Networking, Database Systems, Pattern Recognition, Artificial Intelligence, Large Application Practicum. System Practicum.
- **ACM Chapter Coordinator of the Institute** for the academic year 2017-2018.

## WORK EXPERIENCE

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**Google Summer of Code Developer**

**Mifos**

**April 2018- Aug 2018**

- Added offline data syncing feature in the Mifos Field Officer Application for the cases when the Field officer visits remote areas without network connectivity thus enabling the officer to save the data locally which would be synced automatically to upstream server without manual effort.
- Added the feature to generate and fetch Loan,Savings,Funds,Accounting reports.
- Enhanced the Mifos Individual Collection sheet fragment into a three fragment Tab Layout.
- Looking forward to add Google Cloud Messaging support in the application as a part of open source contribution.

**Software Engineer,Intern**

**Promax, Mohali**

**Dec 2017- Feb 2018**

- Migrated the MySQL patents database to NoSQL based Elasticsearch engine using Logstash thus reducing the query time on bulk data with billions of patent records.
- Worked on both back-end and front-end of the patent search engine. Tested Complex queries such as proximity search,spanning search on Kibana and integrated the queries in the search engine on different patent attributes via Python.
- Added custom queries in the search engine such as proximity search within sentence and paragraph.

## LANGUAGES AND TECHNOLOGIES

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- **Programming Languages:** [C++,C,Java,Python](Most experience). [Ruby,Javascript,PHP](Some experience).
- **IDEs and Programming Tools:** Android Studio, Fish Shell, make, Sublime Text.
- **Other tools/frameworks** Git, Docker, Ruby on Rails, MySQL.

## PROJECTS

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- **Deception in Cyber Security using simulated environment(Ongoing):** Developing a sandbox environment and creating honeypots in a simulated network.
- **Smart Garbage Bin:** Designed and implemented a prototype garbage bin which recognizes the garbage by capturing the image during dumping and sort the garbage into correct category bin using the pretrained Google inception model.The garbage bin was mobile and could be called to a particular location via an android application.
- **Optimal wifi connector:** Developed an optimal wifi connector for the institute which suggests users to connect to the best available router inorder to optimally allocate bandwidth and prevent network congestion on a single router.
- **Analyzed Distributed MongoDB sharded clusters:** Analyzed horizontally scaled distributed MongoDB sharded database containing billions of records with incoming real-time updates. Ran different queries and compared the performance with the vertically scaled MySQL database.
- **Open source projects:** A contributor in open source organizations such as Mifos(Self service app, Field officer app), Gnome(Gnome To-do).

## ADDITIONAL EXPERIENCE

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- **Hackerearth campus ambassador of the institute** for the academic year 2016-2018.
- **NSS coordinator of the institute** for the academic year 2015-2016.