G4 - 105 IIT Mandi
Himachal Pradesh, India 175005

SAHIL ARORA

sahilarora535.github.io
linkedin.com/in/sahilarora535

EDUCATION

Indian Institute of Technology Mandi   Himachal Pradesh, India   Aug 2014 – Jun 2018
- **B.Tech in Computer Science and Engineering, CGPA: 7.58**
- **Relevant Coursework:** Algorithm, Data Structures, Operating Systems, Networking, Database Systems, Pattern Recognition, Artificial Intelligence, Data Mining, Probability and Random Processes, Managerial Decision Making.
- **Teaching Assistant** for the courses Advanced Data Structures and Algorithms, Programing and Data Structures, Operating Systems and Networking, and System Architecture Practicum.
- **Programming Club Coordinator of the institute** for the academic year 2016 - 2017.

WORK EXPERIENCE

Google Summer of Code Developer   The Linux Foundation   May 2017 – Aug 2017
- Added support for conversion of raster images to PCLm format which is a strict subset of the PDF format. This in turn enables printing to millions of printers which conform to the WifiDirect and/or Mopria standard, completely removing the need of a printer driver software in linux.
- The work done has been released first as a new feature in the October 2017 release of **Ubuntu 17.10 Artful Aardvark** and makes the linux distribution as good as mobile devices when it comes to wireless-driverless printing.
- Added support for writing PCLm files to QPDF, making it the first open source software which supports writing PCLm.

Software Engineer, Intern   Khosla Labs, Bengaluru, India   Dec 2016 - Feb 2017
- Developed a software in Python to automate populating data from a Cassandra database to an XML workbook template, thus reducing processing time per database record from 1 hour when done manually to 1 minute after automation.
- Developed a software to fetch desired features from multiple RESTful services and combine them for analysis by machine learning algorithms, with the capability of adding or removing new RESTful services without modifying any code.
- Migrated an entire web app based on the MifosX framework in AngularJS to a standalone AngularJS application.

LANGUAGES AND TECHNOLOGIES

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

PROJECTS

- **Multiquery optimization on a Distributed Complex Event Processing Engine(Ongoing):** This project aims at optimizing aggregate queries over streaming data on a distributed complex event processing engine.
- **Analyzing Amazon's Warehouse using AWS Elastic Map Reduce:** Analyzed Amazon's item database containing billions of records with incoming real time updates, to show top products based on some predefined criteria. Used AWS Kinesis for streaming data, HBase for storage and HiveQL for computation on the AWS Elastic MapReduce cluster.
- **DNS Failover mechanism:** Implemented a DNS failover mechanism for the institute which automatically switches to secondary internet service provider in case the primary internet service provider is down and vice versa.
- **Bank Assistant for the blind:** Designed and implemented a prototype which automated form filling process in a bank using voice instructions given to the user. Authentication was made secure using a fingerprint scanner to identify the user. It used a Raspberry Pi as control unit for the prototype and a Ruby on Rails server.
- **Analysis of pattern recognition algorithms:** Analyzed various pattern matching and recognition algorithms like neural networks, K-nearest neighbor, etc. on a handwriting dataset and compared the results.

AWARDS

- **ACM ICPC India Regionals:** Represented IIT Mandi at the ACM ICPC India Regionals in 2015, 2016 and 2017, with the best rank being 7 out of 160 at the Kolkata/Kanpur Regionals, 2017.
- **GolmanSachs Quantify 2017:** Stood 2nd of 400 teams from top 25 Indian colleges in the GS-Quantify 2017 challenge.
- **Amazon Code Wizard Challenge 2017:** Competed against 189 top teams from all IITs and stood at 4th position.
- **Recognition for contribution to The Programming Club:** Received recognition for exemplary contribution to the activities of the Programming Club on the 9th Foundation Day of Indian Institute of Technology, Mandi.
- **Kishor Vaigyanik Protsahan Yojana(KVPY) Scholar 2013**