# Himanshu Shekhar

## Final year grad with 1 year experience

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## Education

## 2015–2020 Bachelors & Masters of Technology in Information Technology.

Indian Institute of Information Technology, Allahabad CGPA: 8.90 (9 semesters)

## Experience

## May 2019 - **Software Intern**, Sumo Logic.

Present Sumo Logic is a cloud-based machine data analytics platform. I was a part of data-collection team handling ingestion of over 10 petabytes of machine data every month.

- Learned about the architecture of large-scale distributed systems over AWS, data-pipelines working in harmony passing messages over RPCs.
- Contributed to the beta-release of archive intelligence which helps customers ingest data at a fraction of present cost.
- Contributed to the beta-release of observability for collection letting customers know the state of their configuration.
- Been part of on-call rotations and handled production releases.

## March 2019 - Co-Investigator, Indian Space Research Organization (ISRO).

- Present Developed a Voice Based Assistant to allow policymakers drive decisions based on geospatial data
  - Implemented a Django API over PostGIS, along with integrating an NLP parser for voice queries

## December Backend Intern, Atlan (formerly SocialCops).

2018 Atlan

- Dockerized all (18) microservices of Collect a mobile data-collection app
- It eased local setup and on-premise deployments in single-step via docker-compose
- Optimized older Dockerfiles for dependencies, bringing down build size and build time by 80%

## May–July **Backend Intern**, Atlan (formerly SocialCops).

- Built Collect Toolbox a Python SDK to abstract complex queries and ease day to day related chores
- Built a performance reporting tool for the support team which sends an Excel report weekly on Slack

## Apr 2017–Apr Software Development Coordinator, Technical Society, IIIT-Allahabad.

- Organized workshops, talks and mentored students to get started with software development
- Taught primarily about Linux, Git, REST API, authentication, etc.
- Developed alumni portal for the institute to house profiles, contact information and organize events. The portal was used for first alumni meet in 2017

## Projects

#### Jan - May Intent based Robot Grasping, Python, Matplotlib, PyTorch, OpenCV.

- 2018 Paper published at IEEE International Advance Computing Conference 2018.
  - Preparatory work to recognize optimal rectangle for object grasping by a robotic arm
  - Created data-pipeline to optimize memory usage in PyTorch by lazy-loading training data
  - Created tool to label rectangles on training images using OpenCV based GUI

## March 2018 **Aerially**, NodeJS, Ethereum.

- Runner up at Hack In The North 3.0, IIIT-Allahabad
- Built a smart-contract platform for airlines to transfer overbooked passengers to alternate flights
- Used Ethereum's eventing mechanism to monitor events

## Dec 2015 - **ProxyMan**, Bash.

- Present Developed a tool to configure system-wide proxy settings on Linux
  - Configures GNOME gsettings, bash, apt, dnf, git, npm, docker, Dropbox proxy settings
  - Appreciated by community with more than 300+ stars on GitHub and used widely at IIITA

## Jan 2018 Dexter, Python, JavaScript, NLP.

- Winner at Hack36, annual hackathon of MNNIT-Allahabad.
- Voice controlled code-editor for the disabled
- Used Fuzzy logic based NLP parser to convert voice to Python/Javascript code using Chrome Speech Recognition API

## Oct 2017 **Expedite**, Python, Django, MySQL, ReST API.

- Winner at IIIT-Hacks, 2017, IIIT-A's annual intra-university hackathon
- Bridging customer issues on social media to customer support
- Comments/Reviews on social page gets registered on company's CRM
- Machine learning based classifier classifies and assigns issues to respective support team

## May 2016 - 21Lane, Python, Qt5, FTP.

- Oct 2016 Peer to peer, GUI based file sharing software written in Python, Qt5 and pyftpdlib
  - Used FTP to transfer file and data between machines
  - Implemented bulk file downloader by batching them using worker threads and a task-queue
  - Mimics bittorrent with a central hub acting as tracker

## Technical skills

Data pipelines, ReSTful services, Benchmarking, Debugging

Confident Python, Golang, Java, Scala, JavaScript, C, Bash

Intermediate C++, Matlab/Octave

Tools Docker, SQL, MongoDB, Qt5, Django, Flask, Git, ROS

Platform Linux, AWS

## Positions of responsibility

Mar 2018 - Senator to the Student Welfare Council, IIIT-Allahabad.

Feb 2019 Bridged students to welfare council to get their grievances addressed

April 2016 - Member in Open Source Society, IIIT-Allahabad.

March 2017 Organized workshops and mentored students to get started with open-source

#### Relevant courses taken

Distributed Systems Data Structures and Algorithms

Artificial Intelligence **Operating Systems** Artificial Life Simulation Soft Computing Image Processing Data Mining

Compiler Design Computer Architecture

Computer Networks Database Management Systems

Object-Oriented Programming Optimization Techniques Linear Algebra Convex Optimization