SANCHIT SHARMA

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Experienced Software Engineer, Team Lead and Architect with 6 years experience in product conceptualisation and building distributed service oriented architecture at a fast paced startup.

TOOLS & LANGUAGES

Programming Languages
Proficient - Python.
Familiar - Java, C++.

Web Technologies
Django, Javascript, Flask

Databases
PostgreSQL, InfluxDB, Worked with Druid

Data Analytics
pandas, numpy

Communication Protocols
HTTP, MQTT, Modbus.

DevOps
Ansible, Grafana, Docker, Kubernetes

Cloud Environments
Azure, AWS, GCP

Others
Kafka, Airflow, Redis

EDUCATION

CGPA 8.12,
B. Tech. (Computer Science)
IIIT-Delhi
2009 – 2013

91 %, XII CBSE
Jaspal Kaur Public School
2008 – 2009

85.8 %, X CBSE
Jaspal Kaur Public School
2007 – 2008

PROFILE SUMMARY

Joined ***Zenatix*** - *an IoT startup* as **employee #1** in Nov 2013. It was acquired by Hero Electronix, a Hero group company in May 2018. Now a 100+ people organization with 12 people tech team.
Owned **product development** based on customer and internal needs. In 6 years, gained experience in developing, maintaining IoT applications, Django based web applications and cloud data pipeline. Worked with the co-founders and a cross-functional team of data scientists, designers, operations and support. Optimized hiring process while recruiting 8 software engineers in 12 months within a constrained budget.

EXPERIENCE

Software Architect, IoT Cloud Group

Zenatix
April 2018 – August 2019 Gurugram, HR

Architected and led cloud side of development. Developed growth culture in tech team and incorporated best practices for development, meetings and work reporting.

- **Kafka Based Data Pipeline** - Architected and led infrastructure development for MQTT ingress at scale into Kafka for streaming, archival and analytics.
- **Monolith to Microservices** - Led the breaking up of a monolith into 8 Django based services talking to each other over REST.
- **ORM for sMAP** - ORM over query layer of sMAP (proprietary timeseries database) as a Django library. Formed the core of most services in the stack.
- **WattMan** - Configurable dashboard for customers to consume reports, key metrics and alerts.
- **Control Deployment Module** - Dashboard to deploy automation actuation rules across 100's of IoT Gateways.
- **Error Reporting** - Developed a Django library for logging and reporting of domain specific errors.

Technical Lead, IoT Cloud Group

Zenatix

April 2015 – March 2018 | Gurugram, HR

Built and mentored a team of 7 developers. Responsible for providing a roadmap and subsequent delivery of IoT Cloud stack.

- Following frameworks were designed to enable data science team in deploying their code for customer/internal use cases -
  - **Alerting** - Real time stream analysis on incoming (single or group of) timeseries and sending notifications via email/sms.
  - **Reporting** - Framework to enable data-science team to add new python functions/classes as reports which could be mailed or shown on dashboard.
  - **Metrics** - Framework to make computed timeseries using code by combining and processing existing timeseries based on business use case.
  - **Issue Reporting** - For interpreting problems in devices on fields based on the health timeseries data reported by them.
  - Led the dockerisation of existing services.
- **Device Management Platform** - Cloud + edge modules for monitoring, versioning and updation of software/configuration in IoT Gateways. Mentored in design and implementation.

Software Engineer

Zenatix

November 2013 – March 2015 | Gurugram, HR

- Developed and maintained from scratch -
  - **Energy Web App** - Django Web app for visualising data trends, analysis, reports and alerts, forming core of the various products sold.
  - **Data Collection Module** - Modular framework for adding new sensors.
  - **Scheduling Framework** - Framework for automated actuation of devices/sensors handling complicated edge cases.
  - **Edge Health Module** - Scripts for reporting health of networking, cpu et al. metrics of IoT Gateways and self-healing.
- Forked open source repos and deep-dived into the code to fix production stalling issues
  - **readingDB** - Timeseries database built on top of Berkley DB.
  - **sMAP** - Archiver, data collection and query framework for timeseries data built on top of readingDB.
  - **OpenWRT** - Compiled a custom image of the open-source OS with custom scripts to work in Zenatix routers (deployed live in more than 1500 locations) - *blog-post*