

**Saurav Verma,**

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Looking for a change in Blockchain industry.

**Education:**

Intermediate: CBSE Board, CCDPS ghaziabad(u.p), 2003

Graduation: IIT Delhi, Industrial and Production Engineering, 2008

**Experience:**

**Envisage Media Pvt Ltd, Founder** (2008 to 2012):

Started as a cofounder in the year 2008 and then sold it to investors in the year 2012. Here we designed systems to monitor and manipulate real time HTTP packets at ISP data centers.

**Innox apps Pvt Ltd** (Jan 2013 to June 2013):

Worked as a lead python developer to develop advanced backend for their applications. The job involved scaling application vertically as well as horizontally with python.

**Freelancer** (July 2013 to September 2013) :

Designed a POS system for restaurants, Researched on financial forecasting and sales forecasting using machine learning methods on time series. The POS was based on backbone.js and marionette.js, visualizations was based on D3.js

**Sports Unity, (C.T.O)** (June 2015 to July 2016) :

A Semantic Chat system based on Erlang which provides scalable concurrency based on actor producer model. Users could find other users based on the semantic and syntactic matches of their reviews posted on chat rooms, Helping people to find like minded People

\_Built with Erlang, Python, Android, IOS, Elasticsearch, PostgreSQL\_.

**Madmachines (C.T.O)** (Oct 2013 to Jun 2015):

We developed a Natural language processing Engine which generates a Digital menu including Ambiance, Dishes, Service quality at restaurants, just from the reviews posted on social Media. The whole pipeline of machine learning includes Sentence tokenization, semantic similarity, sentiment analysis, Parts of speech tagging, Third degree Markov models and so on.

The Engine was domain agnostic and can be customized for any other domain.

\_Built with Python2.7, Marionette.js, Elasticsearch, MongoDB, NLTK, Scikit-learn, Genism\_.

**Quality Council of India (Tech Consultant):** (August 2016 to January 2017):

Working with Quality council of india as technology consultant providing services to NSDC, NBET, Indian Railways etc.

***Unlearn Kids (Tech Consultant):*** (May 2017 to october 2017):

Technology consultant to make their content uploading dashboards in Angular 2.0 with redux platform, backend was in python3.6, mongodb, redis and AWS.

***Quality council of India (C.T.O):*** (January 2017 to Present):

Working with Quality council of india as a CTO framing architecture for their nationwide applications for several ministries including NSDC, Ministry of commerce, DRPG, NCTE, NABH, NABCB, Indian Railways (CRIS), NBET, GEM.

***Key Projects:***

Implemented Certification platform on Hyperledger Sawtooth Platform. Decentralize identities were build for several users using 24 Word Mnemonics.

- All addresses were generated from mnemonics at random indexes generated.
- Users can issue certificates to other users with revoke time.
- Users can share certificates to other users, different addresses for share certificates transactions.
- Users can create child accounts to issue certificates to other users .

All the addresses were generated so that no association can be drawn between them including create\_certificates addresses, share\_certificates addresses, transfer\_certificates addresses etc. All the certificates were Encrypted with symmetric cryptography algorithms and Pub/Private keys pairs with asymmetric cryptography. PBKDF algorithms for generating keys on users passwords.

***Skills Summary***

- Python2.7, Python3.6, C, Golang, Erlang programming language.
- GCP and Aws cloud infrastructure, VPC, S3, SNS, Lambda, RDS, DynamoDB, LightSail, Load balancers, Lex, Polly etc, Cloudtrail, Cloudwatch, Kinesis, API-Gateway, Lambda functions.
- Front end language platform like Angular 1.6, Angular 2.0, backbone, D3.js, Graph.js, marionette with jquery with relevant libraries to ease production like require, webpack, npm, angular-cli etc.
- Natural language processing, ranging from advanced knowledge representation to probabilistic models to draw inference from the data.
- Machine learning in all the domains, supervised learning, unsupervised learning and reinforcement learning, hands on experience with algorithms like neural nets, support vector machines, random forests, PCA. LDA, bayesian statistics, probabilistic graphical models, Markov processes, random processes models.
- Databases like Mongodb, RethinkDB, Redis, Postgresql, Elasticsearch, sharding and replication for data availability and fault tolerance.
- Multiprocessing architecture to summarise and process data, celery in python, CUDA.
- Webservers like Nginx and Apache2, horizontal and vertical scalability.

- Advanced logging for error detection like logstash, kibana, which is used especially for distributive servers.
- Network tracing tools like wireshark, tcpdump, nmap , netstat, kismet, nessus etc.
- Python based UI Platforms like wxpython, tkinter etc.
- Front end visualizations libraries like D3.js, graph.js and backend libraries like Matplotlib, bokeh etc.
- Natural Language processing toolkits like NLTK, genism, scikit-learn, pybrain.
- Python Frameworks like Tornado, Django, Flask, Sanic.
- Deep neural nets libraries like Tensorflow, Pytorch, Theano.
- Decentralized technologies like IPFs, Hyperledger sawtooth, Caliper and Composer.
- Transfer Learning, One shot learning, federated learning on python.
- Blockchain technology Hyperledger sawtooth.

***Interests:***

- Exploring different theories about the origin of language in different cultures.
- Different probabilistic models to define the underlying basis of language.
- Online MOOCs on different fields like philosophy, generalized models, computation theory, linguistics, Game theory etc.
- Distributive machine learning on blockchain.

***Patents Pending:***

Decentralized key management on blockchain to store users mnemonic on Private/Public blockchains involving a centralised trusted party. Even if users collude, They can't decrypt the user mnemonic.

***Personal Details:***

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