Aviral Srivastava

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EDUCATION

Vellore Institute of Technology, Chennai, Tamil Nadu, India.

Jul 2014 - May 2018

■ B.Tech, Computer Science. CGPA: 8.34 / 10.00(relative)

WORK EXPERIENCE **SocialCops**

Jul 2018 - Present

- Data Engineer
 - Building Data Infrastructure at SocialCops: Data Repository(versioning), Serverless Data Streaming and Data Processing; abstraction of Airflow to automate the generic ETL Pipelines

Bubble Apr 2017 - Apr 2018

- Co-founder.
 - Built a distributed systems for processing social media content and applying emotional as well as sentimental analysis.
 - Got selected in Y-Combinator startup-school 2019 in mentorship track.
 - Got featured on IBM's developer blog.
 - · Stack: Python, NodeJS

SocialCops May 2018 - Jun 2018

- Software Development(Backend) Intern
 - Built Woodward: An automating micro-service for pricing.
 - Introduced Event Sourcing mechanism in Collect app for various business use cases.

Wingify Dec 2017 - Mar 2018

- Software Developer Intern.
 - Built Segmenter Services for VWO and PushCrew: Used by 10k+ accounts daily. It was used for transforming user's functions ont the platform like querying the data to the corresponding SQL queries, DSL trees, JS Code, etc.
- Stack: PHP, MySQL apart from other DevOps tools

Commutatus Jun 2016 - Jul 2016

- Full Stack Developer Intern.
 - Built Customer Relationship Management tools.
 - · Stack: Python, PHP

LeagueSX Dec 2015 - Feb 2016

- Python/Django Backend Developer Intern.
 - Built a content-management system for daily updates in football leagues.
 - · Worked on making a "private-league" option in the fantasy football game.
 - · Stack: Python

RESEARCH EXPERIENCE

School of Computing Science, University of Manchester

Aug 2017 - Present

- Data Science Research Intern.
 - Implementing membranous plasticity in the Kinetic LGN Model using Regression Learning.
 - Built a computational neural mass framework to study synaptic mechanisms underlying alpha and theta rhythms using Numerical Analysis.
 - Mentor: Dr Basabdatta Sen Bhattacharya, Researcher, Kirkland Building, University of Manchester, UK.
 - Stack: Python

School of Computing Science and Engineering, VIT University

Sep 2017 - Nov 2017

- Data Science(Machine Learning) Intern
 - Built a Machine Learning model to predict backlogs of Engineering undergrads.
 - Accuracy of > 95%
 - Mentor: Prof Sakkaravarthi, Former Professor, VIT University, Chennai.
 - Stack: Python

School of Computing Science and Engineering, VIT University

Jul 2017 - Dec 2017

- Software Engineering Research Associate
 - Proposed a method: a framework of designing Requirements Engineering in IoT based applications.
 - Applied requirement engineering models for Object Oriented Design and Analysis(OODA-RE).
 - Published a research paper in IJSEA 2018 January edition.
 - Mentor: Dr M Sivagami, Professor and Researcher, VIT University, Chennai.
 - Stack: Python, Java

- Data Science Research Intern.
 - Worked on Mapper Algorithm, a topological data science research project. Led a team of three interns.
 - Built a Cloud generation platform: Cloud (randoms or algorithmic generated) around a graph (connected, disconnected).
 - Improved the processing chain with (minimally) filter functions in terms of visualization of the results.
 - Mentor: Dr Vitaliy Kurlin, Associate Professor, Computer Science, University of Liverpool, UK.
 - Stack: Python, C++, Boost Graph Library

PUBLICATIONS

A Software R E Technique Using OOADA-RE and CSC for IoT Based Healthcare Applications Jan 2018

PROJECTS

- EEG Simulator
 - Free Open Source EEG Simulator for use by Researchers.
 - Applied Regressional Learning algorithms to make it adaptable to different states of mind: resting, gaming, etc.
 - Included pre-processing and cleaning of EEG recordings for their further simulations/
- Self Driving Remote Control Car
 - A remote control car which is to be driven on a path for a few times via keyboard to make it learn the path and then it can drive itself without any human involvement(even remotely).
 - Usage proposed to Integral Coach factory where remote automation is to be replaced by this model.
 - Max testing accuracy achieved: 73 percent, maximum training accuracy achieved: 90
- E-Commerce Framework
 - Created a framework easy to customize(back-end) on MVC ideology
- Vishleshan
 - An MVC framework providing REST API Services for Conversion Optimization Platforms.
- CICD Pipeline de Docker
 - A CICD pipeline for Dockerised Cloud App
- Footfall Tracker
 - To track footfall for everyday inside mess and then based on the data calculated generate statistics.
 - Applied Linear Regression to the Wei-bull distribution and predicted the number of students that would turn up in the canteen on a given Menu.

SKILLS AND INTERESTS

- **Development:** AWS Glue, Kubernetes, Airflow, Key-value databases *viz* Cassandra, RocksDB, etc; Celery, Hadoop, Spark, Redis, Memcache, Kafka, Django, OpenCV, Boost-Graph Library, Py-Test, Wordpress, Woo-commerce.
- **DevOps:** Vagrant, Git, Docker (Basic), AWS, Linux.

VOLUNTEERSHIP

• Love Heals Cancer: Social Media Marketing, On-ground report verification.