

Aviral Srivastava

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EDUCATION

Boston University, Boston, Massachusetts, United States.

Sep 2019 - Present

- MS, Computer Science. Thesis: Tuning Query Processing in Key Value Databases

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

Jul 2014 - May 2018

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

WORK EXPERIENCE

Atlan (formerly known as SocialCops)

Jul 2018 - Jul 2019

- Data Engineer
 - Designed and Built Data Repository(data versioning), platform for Serverless Data Streaming and platform for Serverless Data Processing.
 - Designed and built "Pallet Core": an internal tool built over Airflow to automate creation and maintenance of ETL pipelines.
 - Designed and built Jupyter Notebook collaboration in a data collaboration product.
 - Solved Data Integration and Data Ingestion at scale viz Tableau, Collect, etc.
 - Managed on-premise deployments of multiple projects like UNSDG, MoPNG, etc; scale: billions of rows per day.

Bubble

Apr 2017 - Apr 2018

- CTO and Co-founder.
 - Audience Engagement tools which enable digital media platforms to integrate social reactions with video or textual content.
 - Built the complete backend and data platform for processing social media content and applying emotional as well as sentimental analysis.
 - Got featured on [IBM's developer blog](#) .

SocialCops

May 2018 - Jun 2018

- Software Development(Backend) Intern
 - Built Woodward: An automating micro-service for pricing in [Collect](#)
 - 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+ user accounts daily. It is used for transforming user's functions on the platform 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

Sep 2017 - Aug 2018

- Data Science Research Intern.
 - Implemented 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.
 - Code: [EEG Simulator](#)
 - Stack: Python, Numerical Analysis.

Data Science Lab, Computer Science, University of Liverpool

May 2017 - Aug 2017

- 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(STL of C++)

- Research Associate, Software Engineering
 - 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

PUBLICATIONS

- [A S/W R E Technique Using OODA-RE and CSC for IoT Based Healthcare Applications](#) Jan 2018

PROJECTS

- [ZCash Service Status Dashboard](#)
 - Healthcheck monitoring dashboard for [Zcash](#) External Services.
 - I volunteered at [The Vantage Project](#) and together with the team, got the project [funded](#) and completed.
 - Open-sourced the code on [Github](#).
- EEG Simulator
 - Free Open Source EEG Simulator for Researchers.
 - A simulator for a person's EEG readings which uses Numerical Analysis to simulate the environments and product results.
 - 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
- 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.