Aishwarya Sahoo

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Education

Vivekanand Education Society's Institute of Technology (affiliated with the University of Mumbai)
Bachelor in Engineering (Computer Engineering) **Jul 2017 - Jul 2021**
CGPA: 9.28/10.0.
Notable Coursework: Artificial Intelligence & Soft Computing, Machine Learning, Natural Language Processing, Cloud Computing, Data Structures, Analysis of Algorithms, Advanced Algorithms, Big Data Analytics, Database Management System, Data Warehousing and Mining, Applied Mathematics.

Publications

1. Aishwarya Sahoo, Jatin Bhagchandani, Manasee Palsule, Sneha Lalwani, Mannat Doultani. Smart Underwriting – A Personalized Virtual Agent in *IEEE's International Conference on ent Computing and Control Systems, 2021.*
2. Aishwarya Sahoo, Archana Bhatia, Mohini Bhave, Ria Dharmani, Kajal Jewani. Decentralized Energy Trading in *International Journal of Innovative Science and Research Technology, 2020.*

Experience

Software Development Engineer, CarTrade Tech Ltd. **Jul 2021 - Current**

- Engineering optimized solutions for the team "abSure Tech" and development and maintenance of two major microservices which facilitate communication and authentication using technologies like DotNet, React & Redux, Elastic Search, BigQuery, RabbitMQ, and Jenkins.
- Contributed to major features like used car price valuation which gives the predicted price of a used car, and dent map visualization which highlights the imperfections present in used cars.
- Developed the performance evaluation system for the Engineering & Technology dept. by creating a job that stores GitHub statistics, and a dashboard using Grafna and Elastic Search.
- Migrated Synapse Logs from MySQL to BigQuery to achieve storage space reduction in relational databases.

Machine Learning Intern, Tanmaya Computer **Jul 2020 - Mar 2021**

- Worked on a model which answers questions from paragraphs using dynamic co-attention networks.
- Worked on a project which predicts the deterioration of COVID-19 using deep neural networks.
- Teaching assistant for Data Science course for undergraduate students.

Undergraduate Intern, VESIT Renaissance Cell **Dec 2019 - Jan 2020**

- Developed an E2E application for disaster management for the Goonj Foundation which has functionalities like inventory maintenance, and route optimization using graph algorithms, developed by using the PHP framework Laravel.

Android Development Intern, Edgistify **May 2019 - Jun 2019**

- Worked on the data acquisition application and tracking app involving different use cases (like no internet connection, and fluctuating orders) through Android Studio with a Java backend.

Key Projects

Smart Underwriting – A Personalized Virtual Agent for *BE Project* **Aug 2020 - Apr 2021**

- A chatbot to mitigate the process of claiming insurance and resolving queries for users. Objective questions are answered through the BERT algorithm with structural pruning while subjective queries and operations are done through Node JS.
- Security through Facial Recognition, Digital Signature, and Blockchain.

Automated Society Security Task for *Project Deep Blue* **Oct 2020 - Jan 2021**

- A web application that uses deep learning and the internet of things to make a society secure by recognizing an existing person, or registering a new person.

- Also sends an alarm if the recorded temperature of a person exceeds the threshold temperature.

MRI Segmentation for Tumor Localization **Jun 2020 - Aug 2020**

- Applied residual networks to make a classification model predict if a patient has a tumor through their brain MRI scans and built a residual u-network segmentation model to localize the tumor in the scan.

Spam Detection using Ensemble Deep Learning Approach **Aug 2020 - Dec 2020**

- Developed a model using an ensemble deep learning approach consisting of DNN, CNN, and RNN layers. Achieved 92.3% accuracy against baseline SVM's 86.5% accuracy.

Electronic Health Record Management System for *Smart India Hackathon* **Oct 2020 - Jan 2021**

- A web application that facilitates easy management of ledgers of patient records through GraphQL and Blockchain.

Technical Skills

- **Languages:** C, C#, Java, Python, MySQL, CSS, JavaScript, PHP, SQL, MIPS Instruction set.
- Databases: MySQL, MongoDB, BigQuery, Hadoop, Scala, Amazon RDS, DynamoDB, Elastic Search.
- **Technologies:** GitHub, Android Studio, Netbeans, Jenkins.
- **Libraries and Frameworks:** React JS, Express JS, Flask, Django, Open CV, NumPy, Pandas, Scikit-learn, Matplotlib, TensorFlow, Keras, PyTorch**.**
- **Certifications:** Deep Learning Specialization and TensorFlow Specialization by deeplearning.ai and Bertelsmann-powered Data Science Track by Udacity.

Outreach

Teaching Volunteer, U&I, Mumbai **Jul 2022 - Current**

- Teaching for a weekend program (three hours per week) where local unprivileged students are taught school subjects like Mathematics and Science for SSC board examinations.

Teaching Volunteer, Kshamta, Mumbai **Sep 2019 - Mar 2020**

- Taught for a bi-weekly program (six hours per week) where local girls unprivileged are taught subjects like Mathematics and English.

Executive Committee (2021) & Senior Technical Officer (2020), Computer Society of India, VESIT

- Conducted talks and seminars related to Object Oriented Programming, React JS, Blockchain, Data Science, and Machine Learning and mentored the technical team.

Social Responsibility Incharge, Computer Science Branch. **Aug 2017 - May 2018**

- Ensured class participation in activities like Blood donation campaigns, Plastic waste recycling, Beach cleaning, and the flagship event Umeed where funds are raised for NGOs.

Senior Reporter, VESIT Connect. **Aug 2018 - Apr 2021**

- Wrote reports on various campus happenings, and ensured students remained connected with the school alumni through various talks and interviews.

Honors and Awards

- High flier award and Developer of the Month award for the feature dent map visualization at CarTrade Tech Ltd.
- Rockstar Team award for outstanding team performance in the Engineering & Technology Department at CarTrade Tech Ltd.
- Finalist in Project Deep Blue 2020 for solving the long-term capacity planning problem using machine learning to predict the amount of water consumed in Mumbai for the year 2050.
- Awarded first prize by the Indian Society of Technical Education, VESIT for group discussion.
- Academic Excellence award by the high school for being a rank holder in HSC (95.0%) and SSC (95.6%).