Ashish Salunkhe

ashishsalunkhe@ieee.org | +91 98811 49959 | LinkedIn: AshishS | Github: https://ashishsalunkhe.github.io/

Education

Savitribai Phule Pune University — Pune, India
Bachelor of Engineering in Computer Engineering; CGPA: 7.50/10.0 — *Aug 2016 - May 2020*

Relevant Coursework: Data Mining and Warehousing, Artificial Intelligence and Robotics, Machine Learning

Skills

- **Languages**: Python, C++, Java
- **Machine Learning**: PyTorch, TensorFlow, Keras, Scikit-Learn, OpenCV
- **Web Technologies**: Javascript, HTML, CSS
- **Database Technologies**: Oracle11g, SQL, MongoDB
- **Other**: Rapidminer, Photoshop, LaTeX, Tableau, WordPress, MATLAB (Beginner)

Experience

Crysagi Systems Pvt. Ltd. (Now Acquired by CoreView Systems Pvt. Ltd.) — Pune, India
Project Intern (Machine Learning) — *September 2019 - November 2019*

- **Project - Closed Domain Question-Answering over Financial Data**:
  Question-Answering over Financial Domain PDFs
  Implemented information retrieval using Transferred Learning with pre-trained BERT model
  Technology Stack: Language - Python, Packages - torch, tqdm, pandas, sklearn, joblib.

CoreView Systems Pvt. Ltd. — Pune, India
Project Intern (Machine Learning) — *June 2019 - September 2019*

- **Project - DeepSpamReview**:
  Detection of Fake Reviews on Online Review Platforms using Deep Learning Architectures
  Used Attention-based Bidirectional LSTM for Deceptive Opinion Spam Classification.
  Achieved an accuracy of 90.25% on Deceptive Opinion Spam Corpus.
  Technology Stack: Language - Python, Packages - keras, pandas, matplotlib, nltk.

MITU Skillologies — Pune, India
Project Intern (Machine Learning) — *June 2018 - Feb 2019*

- **Project - News Dataset Topic Modeling**:
  Used K-means Clustering, Random Forest Classifier and Latent Dirichlet Allocation.
  Achieved an accuracy of 95.33% on UCI News Aggregator Dataset.
  Technology Stack: Language - Python, Packages- numpy, nltk, pandas, matplotlib, gensim, sklearn.

Robocon PCCOER — Pune, India
Founding Member & Programmer — *August 2017 - March 2018*

- **Autonomous and Manual Robots**:
  Team Size - 30. (6 Programmers) Built 2 robots - autonomous and manual.
  Worked on programming sensors, real-time object detection - Canny Edge and HOG Transfrom using OpenCV.
  Technology Stack: Language - C , Python, Hardware devices: Arduino, Sensors, Actuators and Rasberry Pi.

Publications, Additional Experience & Achievements

- Review Paper on *Machine Intelligence for Sustainable Agricultural Development*, Ashish Salunkhe, Prof. Mahendra Salunke, Computer Society of India Communications, January 2018, Issue [Vol. 41, Issue 10]
- Paper accepted on *Attention-based Bidirectional LSTM for Deceptive Opinion Spam Classification* in IEEE UPCON Conference 2019, to be published in IEEE Xplore.
- Paper accepted and published on *Aspect Based Sentiment Analysis on Financial Data using Transferred Learning Approach using pre-trained BERT and Regressor Model* in International Research Journal of Engineering and Technology (IRJET), Ashish Salunkhe, Shubham Mhaske, December 2019 [Vol. 6, Issue 12]
- Paper on *Evolution of Techniques for Question Answering over Knowledge Base: A Survey* accepted in International Journal of Computer Applications (IJCA) January 2020 Edition and published on January 16, 2020.
- Worked part-time (off-site) for Infralytiks, IA, USA and prepared Image Dataset to identify buildings, roads and trees.
- Conducted and delivered workshop on "Open Source and GitHub: A Walkthrough" as a joint-speaker.
- Participated in ABU Robocon 2018 and won matches at league stage and stood amongst top 40% teams.
- Only team from Institute to qualify for Eyantra Robotics Competition 2017 (eYRC-17) organized by IIT-Bombay.
- Only team from Institute to get selected for Syngenta Hackathon 2020 organized by Syngenta, Pune.
- Team ranked 6th (Team InferSent) in Smart India Internal Hackathon 2020.

Other Projects

- **Sentiment Analysis for Code-Mixed Languages**: ***(Smart India Hackathon 2020)***
  - Web Application Dashboard
  - Generative deep-learning based approach with bidirectional transformer-based BERT architecture for code-mixed sentiment classification
  - **Technology Stack:** Flask, HTML, CSS, Bootstrap, PHP, Javascript, d3.js, Python, Keras, Tensorflow.
- **Multilingual Grievance Android Chatbot for Farmers**: ***(Syngenta Hackathon 2020)***
  - Google API for Speech-to-Text and Text-to-Speech
  - Fuzzy Logic based approach - calculated cosine-similarity to find the textual similarity between extracted speech transcript and the corresponding grievance of crop disease in dataset.
  - Returned the corresponding solution for grievance through text-to-speech.
  - **Technology Stack:** Android, Python, Google APIs
- **InSight- Visual Assistant for Visually Impaired People**: ***(Ongoing Final Year Project)***
  - Android Application for low vision community using federated learning for Computer Vision and Text-to-Speech.
- **Aspect-Based Sentiment Analysis**: Solution to FiQA 2018 Open Challenge
  - Multilabel Text Classification on Aspect Model using Transferred Learning with pre-trained BERT model
  - Sentiment Score Prediction on Sentiment Model using Linear Support Vector Regressor
  - Evaluated the Sentiment Model using RMSE and Aspect Model using F1 Score.
  - Microblogs - RMSE: 0.357811, F1 Score: 0.4610
  - Headlines and Statements - RMSE: 0.134721, F1 Score: 0.4068
- **Software Testing and Quality Assurance**: (Academic Curriculum Projects)
  - **E-Book Repository Website:** Built and Tested website using Selenium Testing Framework and generated report using TestNg
  - **Technology Stack:** Language - Java, SQL, HTML, CSS, Javascript, PHP
  - **Digital Alarm Clock Desktop Application:** Built and Tested Windows Application using JUnit Testing Framework
  - **Technology Stack:** Language - Java, SQL
- **Data Mining and Warehousing**: (Academic Curriculum Projects)
  - **Quora Insincere Questions Classification:** Implemented text classification using synthetic minority oversampling and performed exploratory data analysis. Algorithms: Logistic Regression, Naive Bayes, SVM
  - **Technology Stack:** Language - Python, Packages- numpy, nltk, pandas, matplotlib
  - **Used Car Valuation:** Calculated car price using Toyota Car Price Dataset based on various features using regression algorithms - Linear Regression, Decision Tree and Gradient Boosted Trees. Achieved RMSE: +/- 1077.77 and Squared Correlation: 0.957 using GBT.
  - **Technology Stack:** Rapidminer
- **Attendance Monitoring System - AttendeR**:
  - Team Size - 4
  - Developed an Android Application for QR-based attendance and added this functionality to college's elearning website for teachers to use.

Certifications

- Databases and SQL for Data Science by IBM on Coursera earned in August 2019
- Natural Language Processing in TensorFlow by deeplearning.ai on Coursera earned in July 2019
- Deep Learning Specialization (5 courses) by deeplearning.ai on Coursera earned in April 2019.
- Machine Learning by Stanford University on Coursera earned in January 2019.
- Core Java by Seed Infotech Pvt. Ltd. earned in October 2018.
- Microsoft Technology Associate Security Fundamentals - Certified September 2018

Volunteering and Positions of Responsibility

- Founder and Chairperson of PCCOER ACM Student Chapter *(August 2017 - August 2019)*
  - ACM student chapter with over 200 active chapter members. Responsible for developing and managing chapter programs and fulfilling the chapter's obligations to the Association of Computing Machinery(ACM).
  - Website: http://pccoer.acm.org/