# SOUNDARYA GANESH

Senior Undergraduate Student, PES University

**Programming Languages: C, Python, R**

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## EDUCATION

**PES University, Bangalore, India** **Aug 2018- Jun 2022 (expected)**

B.Tech. in Computer Science and Engineering. CGPA: 8.21/10

- Relevant Coursework: Data Structures & Algorithms, Database Systems, Software Engineering, Discrete Mathematics, Big Data, Data Analytics, Cloud Computing, Machine Intelligence, Computer Networks, Operating Systems, Data Science, Deep Learning, Algorithms for Intelligence Web and Information Retrieval
- Distinction Award- PES University- 2018-19 and 2019-2020.

## EXPERIENCE

**Teaching Assistant: Machine Intelligence course—PES University, Bangalore** **May 2021- Present**

- Working on creating course materials including course slides, concise notes, designing and evaluating coding assignments, and organizing quiz for over 620 students.

**Data Science Intern- Mphasis NEXT Labs, Bangalore** **Jun 2021 - Aug 2021**

- Developed 2 AWS Marketplace Listings (1) to assist consumer finance companies to make lending decisions to mitigate potential loan defaults [link] (2) to detect Healthcare Fraud by building a Machine Learning solution in **Python**. [link]
- Built a BERT Based solution to perform Aspect-based sentiment analysis on e-commerce product reviews in Python
- Developed an Angular website for PACE-ML, an MLOps platform using flask as the backend framework.

**Head of Information Design- PES Open Source, PES University, Bangalore** **Jan 2020 - Jan 2021**

- Responsible for designing and organizing workshops with over 140 students by coordinating with mentors and subject matter experts with a focus on providing an enriching learning experience.
- Conducted weekly knowledge exchange sessions/events (like Hacktoberfest) to promote Open Source culture.

**AI Research Intern- UNX Life, Bangalore** **Mar 2020 - Sept 2020**

- Worked on a chatbot development project for people requiring counseling assistance.
- Developed a web app with a deep learning-based solution for index-based facial emotion recognition.
- Researched and implemented Generative Adversarial Networks (GANs) for facial image generation.

**Teaching Assistant: Introduction to Data Science course—PES University, Bangalore** **Aug 2019- Dec 2019**

- Worked on creating course materials with concise notes, extra coding assignments (in Python and R), and conducting weekly review sessions for over 50 students.

**Research Intern —NIT, Tiruchirappalli** **Jun 2019- Jul 2019**

- Pre-processing for an NLP task and Relation Extraction from documents, implemented in **Python**.
- Explored Protégé-Based Ontology Knowledge Representation (OWL method)

## PROJECTS

**ML & Deep Learning: Detection of onset of Parkinson's Disease (In progress)**

- Developing a diagnostic tool for Parkinson's Disease using multiple non-invasive biomarkers using Machine Learning and Deep Learning models implemented in Python.

**Big Data & Computer Networks: Yet Another Centralized Scheduler**

- Created a Python-based tool to manage the resources and simulate centralized scheduling policies in a distributed setting

**ML &Deep Learning: Bank Customer Churn Prediction**

- Developed a Differentially Private Neural Network with TensorFlow Privacy by performing a combination of data redaction and data coarsening to estimate the privacy protection parameter in Python.

## LEADERSHIP AND AWARDS

**Best Campus Ambassador**- Pravega 2020 at IISc Bangalore- Awarded by Techobytes for managing 170+ student registration for the workshop series by demonstrating leadership responsibilities and publicizing through a variety of channels.

**2021 Code for Good Participant - JPMC- India**- Selected as one of the 600 participants to participate in a nationwide hackathon alongside technology experts from JPMC to solve real-world problems for nonprofits.

**Notable Mention- Decypher Hackathon**-PES University, Bangalore- Ranked #4 out of 80+ teams for the prototype developed during a nationwide 48-hour virtual hackathon and received a CIE Student Startup Program Sponsorship.

## SKILLS

**Libraries**: TensorFlow, NumPy, Pandas, scikit-learn, SciPy, NLTK, spaCy

**Technologies & Frameworks**: Hadoop, Apache Spark, HTML/CSS, MySQL, PostgreSQL, Git, Angular, Flask, Javascript, MapReduce

## ADDITIONAL INFORMATION

**Courses** - Architecting with Google Compute Engine [Specialisation certificate], Machine Learning: Coursera: Andrew NG, Deep Learning and Computer Vision A-Z OpenCV, SSD & GANs, Natural Language Processing, Blockchain and Money

**Hobbies & Interests -** Singer, learning languages, playing guitar, yoga, art, chess (Zonal Level - School Games Federation of India), and writing