

## Vedaanti Baliga

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### EDUCATION

Master of Science in Applied Data Science, GPA: 3.73, **University of Southern California, CA**  
BTech in Information Technology, GPA: 8.95, **Manipal University Jaipur, Jaipur, India.**

Aug 2021–May 2023 (Exp)  
Aug 2015–Nov 2019

### SKILLS

- **Programming languages:** Python, Java, C++, C
- **Database Servers:** SQL Server
- **Web Development and Frameworks:** Flask, HTML 5.0, CSS, React
- **Tools, libraries, and concepts:** Data Structures, Data Visualization libraries (Pandas (Dataframes), NumPy, Matplotlib, Seaborn, Plotly), Algorithmic trading, GitHub, PySpark, PyTorch, Data Science, Machine Learning, Jupyter Notebook, AWS, HPC, R

### EXPERIENCE

#### Data Science Intern | Medtronic, Minnesota (remote)

June 2022 – Aug 2022

- Developed various machine learning models using PyTorch to predict cardiovascular abnormalities in ECGs recordings using multilabel classification (71 labels). Constructed different architectures using deep neural networks to improve the performance of the model.
- The pre-trained model will now be used by the company to annotate ECG recordings with new labels (the model can now help identify more than 30 labels that were not present for internal datasets which can only identify at most 11 labels).

#### Machine Learning Engineer | Quant Binary, San Francisco (remote)

Sep 2020–Dec 2020

- Led a team and devised algorithmic trading strategies for the US stock market with Alpaca API, Python and back tested with Backtrader, Python.
- Deployed all algorithms on PythonAnywhere.
- Achieved a single day +9% profit and more.

#### Software Developer (Intern) | Pikkal & Co - B2B Podcast Agency, Singapore (remote)

Aug 2020–Sep 2020

- Led a team and designed a chatbot in Python for helping clients with podcast information.
- Improved existing voice dynamics platform (data analytics for podcasts) with software development in Flask and machine learning.

#### Full stack developer and Senior Project Assistant | Indian Institute of Technology, Delhi

Aug 2019–May 2020

- Developed and deployed a website, end-to-end/full stack for (CAST) pre-assessment of groundwater contamination using Flask and python libraries for visualizing and analyzing groundwater contamination data.
- Site URL: [www.cast.iitd.ac.in](http://www.cast.iitd.ac.in)

#### Software Developer (Intern) | Samsung SDS

Jun 2018–Jul 2018

- Created web applications and web forms using .NET, C# and, SQL server on an industrial level.
- Conducted testing on a live project for a new website for Samsung service centers.

### ACADEMIC PROJECTS

#### Intelligent music playlist generation using audio features and emotion detection

Fall 2021

- The application clusters a user's personal playlist based on audio features (liveliness, danceability, valence, tempo, etc.) and emotions (joy, sad, happy, etc.).
- Provides an easy-to-understand interface for users to do song exploration, filtering and uploading as well.

#### Web browser for the pre-assessment of groundwater contamination (CAST)

Spring 2019

- Built and designed initial stage of groundwater project. This software is currently being utilized as a teaching and learning tool at Technische Universität Dresden, Germany.
- Named as one of best projects in Information technology (Manipal University Jaipur, 2019).

#### Forecasting of Dell products

Fall 2018

- Devised a predictive algorithm to do market forecasting for products of Dell, with an innovative potential model for same, as part of a Dell hackathon.

#### Smart Crop Management System (SCMS) using Raspberry-PI

Spring 2018

- Constructed a prototype for crop management with Raspberry Pi by working with Arduino (IoT), humidity and rain sensors.
- Selected for startup scope program.

### ACTIVITIES

- Volunteered at the National Association for the Blind, India (NAB). Contributed to 'Sugamya Pustakalaya' (Online talking free book library for differently abled persons around the globe).
- Class representative at Manipal University Jaipur.

Summer 2016

Fall 2016

### PUBLICATIONS

- Second author for conference work (CAST - Contamination Assessment and Site-management Tool)- [https://www.bayceer.uni-bayreuth.de/FH-DGGV-2020/en/prog/bayconf/beitrag\\_detail.php?id\\_obj=18101](https://www.bayceer.uni-bayreuth.de/FH-DGGV-2020/en/prog/bayconf/beitrag_detail.php?id_obj=18101)
- Third author for publication at Groundwater- Contamination Assessment and Site-management Tool - Wiley Author Services: <https://ngwa.onlinelibrary.wiley.com/doi/10.1111/gwat.13137>