

# Abhishek Venugopal

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LinkedIn

GitHub

Medium

## EDUCATION

Degree	Institution	GPA/ Percentage	Year
Dual degree in Biological Sciences	IIT Madras, Chennai	7.22 /10	2020
Class 12 Certificate (CISCE)	KE School, Kottayam	92%	2015
Class 10 Certificate (CISCE)	Evershine School, Pathanamthitta	93.4%	2013

## RELEVANT COURSES & SKILLS

Data Structures and Algorithms	Advanced Python	SQL	Bioinformatics
Data Visualizations with Plotly	Biostatistics	Pandas	Power BI dashboard
<b>Languages:</b> Python, C, Java, SQL		<b>Data analysis:</b> NumPy, SciPy, Pandas, StatsModels	
<b>Data visualization:</b> Matplotlib, Seaborn, Plotly		<b>Deployment tools:</b> Flask, PyWebIO, Git, Heroku	
<b>Machine Learning:</b> scikit-learn, PyTorch, GBMs		<b>Tools:</b> Jupyter, VS Code, Power BI, Tableau, MySQL	

## EXPERIENCE

### Data Science Intern | Papertown

May 2021 – present

- Selected as an intern in data science group based on profile and experience among **200+** applicants through LinkedIn.
- Effectively contributing as a team member on competitions with real-world data, conducting extensive **exploratory data analysis** and implementing various **machine learning algorithms** and its **deployment**

### Super coordinator WebOps | Biotech Department | IIT Madras

Jan 2019 – March 2019

- Setup the automated registration **data collection** and effectively handled the communication to all participants of Biofest'19 which saw a footfall of **400+** participants using **MySQL** and **Excel** spreadsheets
- Coordinated two **technical** workshops on Computational biology and Protein Visualization which saw a footfall of **100+** attendees from various colleges

### Summer Research Intern | IISc Bangalore: Molecular Biophysics

March 2019 – May 2019

### Summer Research Intern | IISER Thiruvananthapuram: Structural Biology

March 2017 – May 2017

## PROJECTS

### Exploratory data analysis of COVID-19 in India

[Link to project](#)

- Scrapped the **dynamic COVID-19 medical information** of State/Union Territories page from Wikipedia. Rendered an interactive zoom-able map using **Folium library** along with insightful **visualizations** of the statistics of the pandemic using **seaborn**

### Sales analysis of electronic goods using Pandas

[Link to project](#)

- Extracted monthly sales data of electronic products in US states in 2019 (from GitHub), combined them and derived useful customer **insights** and answered relevant questions which can translate to improved business through **data-driven analysis** by extensively using **Pandas data analysis and mining** techniques

### Login system using python tkinter with connectivity to MySQL

[Link to project](#)

- Created a functional **GUI based employee login/registration system** using **tkinter** with **MySQL connectivity** through python for authentication, with appropriate display of error messages with **regex**
- Applied **object oriented programming** for creating two classes along with buttons and trigger functions

### E-commerce products classification using LightGBM and OPTUNA

[Link to project](#)

- Conducted **EDA** and **feature selection** in a highly imbalanced dataset containing **0.1M** records and **48** right skewed categorical features having **four** classes
- Experimented with **SMOTE**, data transformation and outlier detection techniques and prepared the data for **Random Forest, XGBoost and LightGBM pipeline** using **OPTUNA** hyper-parameter optimization with 20 trials
- Achieved the best **log loss** (evaluation metric) score of **1.086** with **LightGBM** model, placing it in the **top 25 %** of all predicted models in Kaggle

### Machine Learning model deployment using Flask and Heroku

[Link to Project](#)

[Link to Article](#)

- Created a **web app** of salary prediction linear regression model and **deployed** it at Heroku via GitHub repository

## ACHIEVEMENTS & ACTIVITIES

- Served as the **captain** of Hostel Chess Team winning **Gold** at Schroeter, Institute level tournament (2020)
- Recipient of Half-Time Teaching Assistantship **Scholarship** (HTTA) awarded to GATE qualified students (2019)
- Senior** at classical violin, Leisure Time Activities Program(LTAP), under Dean Students (2018-2020)
- Volunteer** at National Service Scheme(NSS), IIT Madras, involved in drives and projects (2015-2016)
- Perfect attendance** record throughout School, best outgoing student by academic performance (2013)