Abhishek **Venugopal**

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EDUCATION

Degree	Institution	GPA/ Percentage	Year
Dual degree in Biological Sciences (BS-MS)	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
Biotechnology for Healthcare	Biostatistics	Molecular Biology	Structural Biology
Analytical methods in Biology	Genomics & Proteomics	Biophysical chemistry	Biological Physics
Computational biology lab	Cell biology	Evolutionary biology	Research methodology

Languages: Python, C, Java, SQL   **Data analysis**: NumPy, SciPy, Pandas, Excel
Data visualization: Matplotlib, Seaborn, Plotly   **Deployment tools**: Flask, streamlit, GitHub, Heroku
Machine Learning: scikit-learn, PyTorch, GBMs   **Tools**: 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
- An Edtech startup aimed at bringing together similar learning communities riding the booming **creator economy**
- Conducting **statistical** and **time series** analysis and implementing various **machine learning algorithms**

Dual degree Project | IIT Madras   August 2019-June 2020
- Successfully completed a dual degree research project(MS) for the fulfillment of Master's thesis, on the project titled 'Design of efficient stapled antimicrobial peptides to be used as AMR drug by investigating some promising antimicrobial peptides found in wasp venoms'

Summer Research Intern | IISc Bangalore   March 2019 – May 2019
- Successfully completed the project "Expression, purification and **NMR** study of Cytochrome b5 protein"
- Accomplished high quality protein purification (99%), obtained a high confidence SEC in the first attempt and conducted 1D-NMR analysis of the peptide product and submitted a comprehensive report on the same

Super coordinator | Biofest | 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 Trainee | IISER Thiruvananthapuram   March 2017 – May 2017
- Successfully completed the project "Expression, purification and crystallization of Gre-factor homologs and structure determination using X-ray crystallography"
- Purified Gre factors 1 & 2 (proteins involved in DNA backtracking) to high quality (99%) and prepared crystals using vapor diffusion method and submitted a comprehensive report on the work done

PROJECTS

Resume Optimizer Web app – NLTK, Streamlit, Heroku   Link to application
- Created and deployed my own resume optimizer app from scratch, **used frequency, tagging ,wordcloud in NLP**
- Employed a **self-created resume scoring technique** along ATS guidelines with bonus and penalty for keywords
- Added an experimental salary prediction feature, used **multiple regression, conditional weights and biases**

Real estate property search tool - Machine Learning regression, streamlit, Heroku   Link to application
- Deployed a **web app** which predicts the **price** of a property based on user choices and its **location on the map**
- Used a pipeline of machine learning **regression models,** chose least **RMSE,** mapped coordinates using zip codes

World Happiness Report 2021– Pandas, seaborn, Plotly chart studio   Link to article
- Conducted an **exploratory data analysis** to find out which countries are happier in 2021 and why or why not
- Created highly **interactive** visualizations using **Plotly**, published an article about the findings on Medium

Exploratory data analysis of COVID-19 – NumPy, Pandas, Folium   Link to notebook
- Extracted the **dynamic** COVID-19 medical information of State/Union Territories in India page from Wikipedia.
- **Cleaned**, analyzed and rendered an interactive zoom-able map using **Folium** library along with insightful visualizations of the statistics of the pandemic using **seaborn**

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)
- **Volunteered** at National Service Scheme(NSS), IIT Madras, involved in drives and projects   (2015-2016)