# ANUPRIYA JAYAKUMAR

DATA ANALYST

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## PROFESSIONAL SUMMARY

Detail oriented certified Data Analyst with strong data visualization skills and proficiency working with SQL, spreadsheets, R and Tableau. Experience in data mining and analysis projects, deriving insights for optimizing business insights and value.

## SKILLS

**PROGRAMMING LANGUAGES:** R/R Studio, Python, Geopandas, NumPy, SQL, HTML
**VERSION CONTROL:** Jupyter notebook, Kaggle notebook, GitHub, Google Colab, PowerPoint, Excel
**DATA VIZUALIZATION:** Tableau, Seaborn, Matplotlib, Folium, ggplot
**CORE COMPETENCIES:**
Data Analysis, Data cleaning & wrangling, Visualization skills, Report Writing, Presentation Skills, Communication, Collaboration

## EXPERIENCE

### Hack for LA - *Role: Data Analyst (Volunteer work)*

03/2022 - Current

- Find meaningful correlations between LA metro locations (metro rail and bus line) and 311 service request data for the years 2015 up until now.
- API pagination using Python: defined a function [link] to fetch all the rows of data from the 311 data pipeline for a given start date, end date. This function can be run from command-line, i.e., used argspace module to incorporate the parsing of command-line arguments.
- Developed a methodology [link] implementing geospatial analysis to determine the latest population, area and population density of the Los Angeles city neighborhood councils (NCs) using the 2020 Census tracts, updated NC shape file and the American Community Survey (ACS) 2020 demographics data. This method addresses the case when a census tract intersects more than 1 NCs. It is a very big milestone as this enables the integration of updated population density in any 311 data related analysis.
- Have mentored newly onboarded Data Scientists/Analysts volunteers at Hack for LA org.
- Key Skills: Data Visualizations, Data cleaning and wrangling, exploratory analysis of metro data, Geospatial analysis, ETL, published reports and presentations, collaboration with team-mates.
- Technology: Python, Geopandas, Jupyter notebook, Folium, Pandas, argspace, R/R studio, SQL, Spreadsheets, Github, Slack.

### The Mom Project - RISE Program - *Data Analyst Certification*

05/2021 - 11/2021

- Google Data Analytics Specialization course (8 courses) with assignments and a Capstone project.
- Key Skills: Cleaned, organized, explored, analyzed, visualized the data and published the report using R.
- Key Project: Bellabeat Case Study With R [link]
- Technology: SQL, Spreadsheets, Data Visualization using Tableau, R /R Studio, Kaggle Notebook

### Data Analysis and Statistical Inference

03/2015 - 05/2015

- Key skills: Introduction to statistics, Probability and Distribution, Data analysis and Graphics using R, Exploratory Data Analysis, Statistical Inference.
- Key Project: Level of Education VS Political Views-Worked with general social survey (GSS) data [link]
    - o Implemented exploratory data analysis, hypothesis testing to arrive at the conclusion.

### Career break- Stay at home mom

01/2015 - 05/2021

Took a break for my kid. Relaunching my career. Link to upskilling in the interim: [link]

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## EXPERIENCE (CONTD.)

**Physics Dept. University of Washington, Seattle -** *Post-doctoral Research Associate* 08/2012 - 12/2014

Worked on two different research projects (lead one of them)

Stress induced birefringence

• Explored the effect of the stress induced birefringence across the silica viewports on the 2051 nm beam polarization using crossed polarizer arrangement.

• This study is important as precise control of the beam polarization is a general concern in trapped ion PNC measurement.

• Characterized the corresponding optical axis orientation and the phase retardation associated with it using the Jones matrix formalism. The data was analyzed using Origin software.

Dual Axis Ytterbium (Yb)Vapor Cell

- Constructed and developed a dual-axis Yb vapor cell to simultaneously address the two laser cooling transitions in Yb. This finds applications in laser cooling experiments. This was an important deliverables as apart from optimizing the system, it formed the stepping stone for the next experiments.
- Research was published in peer reviewed journals.
    - o https://journals.aps.org/pra/abstract/10.1103/PhysRevA.88.012515
    - o https://aip.scitation.org/doi/10.1063/1.4927198
    - o https://priyakalyan.github.io/Docs/A_measurement_of_the%20strongly_forbidden_6S.pdf

Instructor- Summer 2014 @ University of Washington, Seattle

Was an instructor for a summer quarter at University of Washington, Seattle for the course- Introductory Mechanics. Managed class-size of about 100 students. Designed the curriculum, the exams and graded their quizzes.

## EDUCATION

**Indian Institute of Technology, Madras (IITM), Chennai, India** 08/2007 - 07/2012

Ph.D Physics

• Designed and executed the detailed computational and experimental studies to understand the effect of the LG field on the Zeeman coherences arising as a result of such an atom-field interaction. Also, studied the line-width comparisons between G and LG fields. The results were analyzed using Origin software

• Collaborated and worked at premier research institutes like IISc (Indian institute of science, Bangalore, India) and RRI (Raman Research institute, Bangalore, India) with the construction of an A-B differential amplifier circuit and extended cavity diode laser (ECDL) to perform the above mentioned experimental studies.

• Submitted reports and presentations to the Doctoral committee once in 6 months showcasing the progress made towards the completion of my PhD dissertation.

• Trained and mentored junior graduate.

• Research was published in peer reviewed journals

• Tutored-Classical Mechanics, General Physics, Electronics lab-IITM, Chennai, India 2007-2010

**Presidency College** 06/2005 - 04/2007

MSc Physics

Gold Medalist

**Meenakhi College for Women** 06/2002 - 04/2005

BSc Physics

Gold Medalist

## VOLUNTEERING

**White Oaks Preschool, San Carlos, CA -** *Class parent* 08/2019 - 05/2020

Was a class parent managing the budget using spreadsheet

**Jackson Avenue Elementary School, Livermore, CA -** *Volunteer Science Teacher* 12/2021 - 12/2021

Demonstrated cool Science experiments to the 1st Grader as well as actively engaged them, piquing their interest in the activity.