# **A hand touching a glowing screen Description automatically generated**Data Science Job Salaries Analysis

**Overview**

This project focuses on analyzing job salaries within the field of data science using Python and various data visualization libraries such as Matplotlib, Seaborn, and Plotly. The goal is to explore salary distributions across different job titles, experience levels, employment types, and other relevant factors.

**Project Structure**

1. **Data Exploration and Cleaning**
   * The dataset (salaries.csv) contains information about job titles, salaries, experience levels, employment types, and more.
   * Exploratory data analysis (EDA) includes checking for duplicates, handling missing values, and converting data types where necessary.
2. **Data Visualization**
   * **Basic Visualizations**: Utilized seaborn for count plots to visualize distributions of work years, experience levels, and employment types.
   * **Histograms and Box Plots**: Employed Matplotlib to create histograms and box plots to depict salary distributions and identify outliers.
   * **Interactive Visualizations**: Leveraged plotly express to create interactive bar charts, histograms, violin plots, and box plots to explore salary trends across various dimensions like job titles, company sizes, and remote work ratios.
3. **Insights and Analysis**
   * Identified the top job titles based on popularity and average salary in the data science field.
   * Analyzed salary trends based on different variables such as experience levels, employment types, and company sizes.
   * Investigated the distribution and impact of remote work arrangements on salaries.

**Tools and technologies**

* **Python** is a programming language used for data analysis and visualization.
* **Pandas**: A library for data manipulation and analysis.
* **NumPy** is a library for numerical computing.
* **Matplotlib** and **Seaborn**: Libraries for creating static visualizations.
* **Plotly Express** is a library for creating interactive and expressive visualizations.

**Conclusion**

This project provides valuable insights into the salaries of data science professionals based on various factors. The visualizations generated help in understanding salary distributions, identifying key trends, and making informed decisions related to career paths and employment opportunities in the data science domain.