

# Joyson Chacko George

Email : [joysongorge.3003@gmail.com](mailto:joysongorge.3003@gmail.com)  
LinkedIn: [linkedin.com/in/joysongorge](https://www.linkedin.com/in/joysongorge)  
Portfolio: <https://joy007-portfolio.vercel.app>

Mobile: +91-8527669641  
GitHub: <https://github.com/joygeo007>  
Twitter: <https://x.com/joygeo9641>

## Education

- St. Stephen's College, Delhi University** Delhi, India  
*Bachelor of Science - Physical Sciences(with Computer Science); GPA: 8.091 / 10.00*  
*Data Analysis Using Python Programming, Database Management System, Statistical Software R, Data Structures, Computer Networks, Programming In Java, Computer System Architecture, Operating Systems, Web Design Using Html5 & Numerical Methods* November 2020 - July 2023
- Central Board of Secondary Education** Delhi, India  
*Class XII; 95.4 %* April 2019 - March 2020
- Central Board of Secondary Education** Delhi, India  
*Class X; 90.4 %* April 2017 - March 2018

## Projects

- ChatPDF: Interacting with Embedded Knowledge**  
*Designed an interactive chatbot that extracts and utilizes text data from PDF documents to answer user queries effectively.*
  - Engineered a system for streamlining the process of extraction of texts and images from large PDF files.
  - Utilized advanced NLP techniques to preprocess, embed, and match textual data with user queries.
  - Applied Python, Streamlit, Transformers, OpenAI API, PyPDF2 and LangChain to build and enhance the project.
  - Deployed a chatbot with a friendly UI that for querying and retrieving document content in real-time.
- A Ballad of NLP**  
*Developed models to automatically generate song lyrics using deep learning and NLP techniques to mimic the style of various artists.*
  - Created and refined a dataset of over 100,000 song lyrics using advanced web scraping.
  - Trained a custom LSTM model and fine-tuned GPT-2 model to reflect stylistic elements of target artists.
  - Utilized Python, NLP, LSTM, GPT-2 and Web Scraping to develop and refine the project
  - Generated lyrics that qualitatively captured the essence and style of 2 different artists.
  - Initiated a peer review among 40 students who reported a remarkable similarity in style with the target artists.
- Satellite Imagery Analysis for Post-Hurricane Damage Assessment**  
*Supervised and worked with a team to classify hurricane-damaged buildings from satellite imagery, enhancing emergency response processes.*
  - Aggregated and preprocessed a dataset of 10000 satellite images from hurricane-affected regions.
  - Implemented and trained a CNN and fine-tuned DenseNet121 model to attain a classification accuracy of 97.25%
  - Applied TensorFlow, DenseNet121, CNN and Transfer Learning to optimize the project.
  - Delivered a robust model that facilitated quicker and more reliable damage assessments and response.

## Courses

- MSc. Financial Engineering**, WorldQuant University (2024-2026, ongoing)
- Practical Deep Learning for coders** (ongoing)
- Language Models**, Univ.AI (Oct 2022 - Dec 2022)
- Applied Data Science Lab**, WorldQuant University (2023)
- Convolutional Neural Networks**, Univ.AI (June 2022 - August 2022)
- Basics of AI & ML**, Univ.AI (May 2022 - Jun 2022)
- Basics of Data Science**, Univ.AI (Jan 2022 - Apr 2022)
- Scientific Computing & Python (with honors)**, WorldQuant University (Dec 2021)

## Skills Summary

- Skills:** Data Visualization, Machine Learning, Data Processing, Artificial Intelligence, Deep Learning, Big Data, Statistics
- Languages:** Python, C++, Java, R, HTML, CSS, SQL, JavaScript, Bash/Shell
- Py Libraries:** Tensorflow, Pytorch, Scikit-learn, FastAI, Pandas, Numpy, Plotly, BeautifulSoup, Matplotlib, Seaborn, NLTK
- Databases:** SQLite, MySQL, MongoDB
- Software:** Google Colab, Jupyter, Git, Docker, VS Code, Office suite, Maxima, LaTeX, GCP, Tableau
- Language Skills:** Hindi, English, Malayalam

## Certificates and Achievements

- Standard Bank Data Science Virtual Internship** on Forage (Feb 2023)
- 1st position, MachineKnight hackathon**, TechBairn (Sep 2022)
- Top 100** out of 22,300 in **GetSetHack by RISE** (Cryptography and Forensics Hackathon)
- KPMG Data Analytics Consulting Virtual Internship** on Forage (Aug 2022)

## Interests

Programming, Football, Music, Art, Reading, Web surfing