DR. RONAKKUMAR KANTILAL PANCHAL (PhD)
Semantic/Knowledge Graph Engineer (Ontologist)
Certified in AWS Database Speciality / GCP Cloud Engineer

Data Scientist, Ex- Assistant Professor and Fullstack Software engineering specializing in various platforms and technologies. Dedicated to tackling new technologies and methods to expand and apply expertise to challenging problems. Strives to build and improve reusable tools and solutions to achieve repeatable quality results.

PERSONAL DETAILS

Email ID:
ronakvtcbb@gmail.com
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PG - Address:
Ravet, Pune, Maharashtra
Permanent: 18, Sai Ashish Bungalow, Baben, Bardoli, Gujarat
Social Websites:
https://drronakpanchal.wordpress.com/
LinkedIn:
http://linkedin.com/in/ronak-panchal-phd
Skype: ronnypanchal
GitHub:
https://github.com/ronupanchal
Birthday: March 27, 1986
Gender: Male
Marital Status: Married
Nationality: INDIA
Passport: M9049510, Expires 5/7/25

EDUCATION

Computer Science, Doctor of Philosophy	Completed
Research Area: Semantic Web, SPARQL, Ontology and Data Science	December
Sabarmati University	2020
Ahmadabad, Gujarat	
Research, Research Methodology	Graduated
Post Graduate in Research Methodology	April 2013
Veer Narmad South Gujarat Surat	
Surat, Gujarat	
Information Technology, Master of Science	Graduated
MSc in Information and Communication Technology	April 2008
Veer Narmad South Gujarat University Surat – Marks 62%	
Surat, Gujarat	
Computer Science, Bachelor of Science	Graduated
BSc in Computer Science	April 2006
Veer Narmad South Gujarat University Surat – Marks 64%	
Surat, Gujarat	

SKILL

Cloud Certified
- GCP Associate Cloud Engineer – Aug 2022
- AWS Database speciality
- AWS Developer
- AWS Cloud Essentials
- Snowflake Certification

Languages
- Python (Django/Flask)
- ASP.NET Core,API,MVC
- Data Science (R/Python)
- NodeJS / ReactJS
- C/C++
- C# / VB.Net
- JAVA / Android / Kotlin
- PHP(WordPress)
- Dart/Flutter

Web Components
- HTML5
- Javascript
- CSS/JQUERY
- AJAX/SVG
- W3C/BootStrap

Database
- Neo4j and Cypher query certified
- MySQL, SQLite
- GraphQL
- mongoDB
- MS SQL Server
- Excel/VBA
- MS Office, Access
- Google firebase

Development Tools
- VS Code
- Visual Studio 2019

WORK EXPERIENCE

Project Manager, Cognizant, Pune (Fulltime) USA	Current, 2021

Cognizant Projects (Technical Role: Senior Data Scientist)

1. STORM-Acceleration with GenAI Project (Sanofi) – Duration: **Dec 2023** to till date

Technologies used: Generative AI, Prompt Engineering, LLM, Knowledge Graph (neo4j / Ontology / RDF graph), Vector DB. openai, Azure Cosmo DB, Azure SQL, Python, Streamlit, Gradio

Description: A chat application to be built to provide the suggestion on which category of 7R to be used to the defined application.

2. Ceeza V4 (Boehringer Ingelheim) – Duration: **April 2023** to **Nov 2023**

Technologies used: AWS Cloud9, DevOps Terraform, JIRA, BitBucket,

Description: Animal Health business unit is now the second largest animal health player in the world. It is migration ETL project from SQL server or diverse source to Postgres with AWS Architectural roles and Team management and solutions.

3. Wood Mac-Len Power - Duration: **Feb 2023** to **April 2023**

Technologies used: Neo4j, Python Streamlit framework, AWS service, PostgreSQL

Description: Energy Transition Practice (ETP) data manager is centralized data storage for the energy transition data in Wood Mackenzie. Graph Data Modelling is refactoring using PostgreSQL from Neo4j, API is developed in GraphQL.

2. Cyrus CDP and MDM (Bayer) - Duration: **May 2022** to **Jan 2023**

Technologies used: Snowflake, PySPARK, AWS services (EC2, IAM, S3, DynamoDB, Athena, Glue, Step Function, SageMaker, ML, Lambda, SES, RedShift, Neptune – OpenCypher / SPARQL)

Description: Cyrus CDP (Lift & shift) is a ETL (Extract, Transform & Load) pipeline legacy system for data migration from source files to S3 landing to raw layer (parquet format) and enrich layer to model layer (snowflake tables through store procedure) and Data visualization in Tabluea. My role is Team handling, Task assignments to team member, Problem solution, Coding in AWS services, snowflake store proc/query/storage integration/Copy/SQL queries and Code deployment using Gitlab CI/CD - terraform pipeline.

3. TarDIS (Bayer) - Duration: **Jan 2022** to **Apr 2022**

Technologies used: Python Django, ReactJS, AWS, Amazon Neptune, SPARQL, Elastic Search Query, Semantic Modelling in Tarql/Protege/Kerma (Data Integration Tool)

Description: TarDIS Application is used by data science & lab scientists to search for matching gene data which is present in the ontology database. Various format or sorting, hiding, or categorizing based on a specific criterion, sharing, and saving the result. The search can be done using SPARQL queries which shell be created by DB team or Data Scientist. And, there is fuzzy search too for same thing using Elastic Search.

4. INDIGO (Bayer) - Duration: **Sept 2021** to **Jan 2022**

Technologies used: Ontology/RDF Graph, TopQuadrant EDG, SPARQL, NodeJS

- PyCharm / Anaconda - Jupyter NoteBook - Tableau /SPSS - Google Cloud, Docker **Research Area** - Semantic Web Ontology/RDF/ SPARQL - Machine Learning & NLP - Image Processing - Data Science - Cloud Database and Services **Hardware** - Rasbarry Pi - Arduno for IoT **Semantic Web Tools** - Protege + WebProtege + Design Ontology and RDF - Apache Jena fuseki Server +SPARQL - Cypher Query on Neo4j - GraphDB + OntoRefine - Tableau ontology integration - WIDOCO - LODE - Cellfie Plugin and many reasoner - SmartLogic Semaphore - OOP and Cmap editor - Amazon Neptune ---------------------------- - Managing People and Events - Peer Tutoring, Advising - Writing, Speaking - Long-Term Dedication - Community Service - Training in Unrelated Area, Team oriented and Results driven. - Project Management, Public Relations. - Working Efficiently.	**Description:** INDIGO (INtegrated DeposItory Generic data Object) is central reference master data platform for Bayer Crop Science R&D. It is embedded in framework defining data governance priniples, processes and structures, providing tools for data management, stewardship and visualization. It is built on semantic web technologies, complying with F.A.I.R.(Findable, Accessible, Interoperable, Reusable) data management principles. This allows for an efficient integration of external and internal data resources of varying structure complexity ranging from simple lists with terms and codes to taxonomies and ontologies. **Core Skills:** - Knowledge of Developing logical, semantically rich, and extensible data models. - Worked on creation and maintenance of Taxonomies(poolparty), Knowledge representation (Neo4j / Knowledge graphs / ontology) using Semantic Web standards. - Knowledge of RDF, RDFS, OWL,SKOS,ESCO, Property, HealthCare, Uniprot,SIO,Gene, Disease Sustainable and Digital Ontology. - working with SPARQL knowledge for Triple stores and the associated tool stacks like Top Quadrant EDG, Protégé, SmartLogic, Apache Jena Fuseki, Virtuoso, GraphDB, Blazergraph, Amazon Neptune, neo4j with neosemantic, Protege, TOP Quadrant EDG, Semaphore. - Working with knowledge of JSON-LD and SHACL validation based Validation for Knowledge Graphs - Fair understanding of CSV, nt,ttl, jsonld, owl, rdf file conversion using cellfie plugin and csv2rdf using tarql - Working knowledge of WIDOCO and LODE ontology documentation - Working knowledge of FE: ReactJS, react-native, flutter and BE: hands-on experience working with Python Django / Flask / Streamlit framework, JAVA springboot, C# web API - Working Knowledge of Chatbot Development (using Dialogflow or any other platform) - Experience working on ML or NLP projects and data scraping and automation - Knowledge of ML libraries like tensorflow, pytorch, scikit learn, pandas, numpy, etcp - Knowledge of NLP (BERT, GPT, Word Embedding, NER,Custom NER,nGram, topic modeling), Machine Learning, Graph Learning, Neo4j, NodeJS and mongoDB - Working with AWS Service like S3, EC2, Glue (PySPARK), DynamoDB, Step Function, Lambda, Neptune, Athena, Cloud9, SageMaker, Code Buider - Working with amazon Neptune SPARQL endpoint for loading Bulk data into existing graph using cURL command. - Working in AWS Service of Elastic Search with Kibana for fuzzy searching - Working in Microsoft Azure Databricks and Warehouse like snowflake - Data Visulization tools: Tableau and google Data studio - DevOps: Docker command, GitLab CI/CD and terraform scripting.

Fullstack Knowledge Graph Developer, Bonviv, Delhi	August 2021
- Create social web with taxonomy and ontology and integration in reactjs from flask API plus mongodb. JSON-LD is used for data insertion, deletion and updating and SHACL for validation. SPARQL is used text mining and recommendation - Implement GUI tool for uploading Named Graph using get, post, put and delete API	

Exocube, Autocanada (Part time, Remote work), Canada	July 2021
Role: Data Engineering, checking data quality in Apache Spark, Machine Learning stuff in Databrick on Microsoft Azure, Databricks csv file integration in Tableau	

Full stack python Developer, Auratech, Mumbai (Google client)	March 2021
Responsibility / Role(Part Time): ODM Android Portal rewrite in BE:Python Django, FE:ReactJS and GraphQL API.	

1. Pharmacology Ontology(OWL), Fiverr Client	February 2021
- Created Drug, Drug Manufacturing, Content, Disease related pharmacology ontology in protégé and uploaded on Apache Fuseki SPARQL server integration with UI in semantic web library using Flask/Python and Hosting on AWS cloud - Also develop eye ontology, diabetic ontology, hospital ontology, used Disease Ontology (DO) and many more	

1. WayToMakeMoney, USA **2. Occubly limited, UK** **Data Scientist, Work From Home, Fiverr Client**	April 2020
Responsibility / Role(Part Time): - Extracting large data from concern ontologies and import in new W2MM **ontology** using protégé and accessing via apache Jena Fuseki server with custom dashboard in python Django - Integration CRUD operation using SPARQL query in Django Python - Knowledge Graph Expert in RDF and Neo4j with Cypher Query Apply WordNet library of NLP and ML algorithm on RDF dataset	

Edwisor Company **Data Scientist,** Gurugram, Haryana	December 2018
Responsibility / Role(Part Time): - Selecting features, building and optimizing classifiers using machine learning techniques - Extending company's data with third party sources of information when needed - Enhancing data collection procedures to include information that is relevant for building analytic systems - Processing, cleansing, and verifying the integrity of data used for analysis	

	- Good applied statistics skills, such as distributions, statistical testing, regression, etc. - Excellent understanding of machine learning techniques and algorithms, such as Linear Regression, Logistic Regression, k-NN, Naive Bayes, SVM, Decision Forests, etc. - Experience with common Data science toolkits, such as Python,R, Weka, NumPy, etc. Excellence in at least one of these is highly desirable - Great communication skills, Good scripting and programming skills - Experience with data visualisation tools, such as D3.js, GGplot, etc. - Proficiency in using query languages such as SQL, NoSQL (MongoDB) - Good applied statistics skills, such as distributions, statistical testing, regression, etc.

Vidyabharti Trust College of BCA **Assistant Professor,** Surat, Gujarat	July 2009 to August 2021

Responsibility / Role(Full Time):
- Prepared course syllabi and collaborated in writing modules for Dynamic Learning System
- Carried out an additional responsibility as the student organization's adviser for one academic year
- Encouraged students to participate in the class
- Online educator/facilitator in the Blackboard environment.
- Drafted and edited reports of the College-wide Retention sub-committee
- Highly engaged with Technologies training and Project work

CERTIFICATION AND EXTRA CURRICULAR ACTIVITIES	**PROJECTS**

- Certified in Data Scientist from **IBM** and Edwisor company, Gurugram, Haryana - Certified in Python with Data Science from NPTEL - Certified in Python Ethical Hacking from Udemy - Certified in Python for Machine Learning from EICT, IIT Roorkee - Certified in Tableau from Udacity - Certified in Semantic Web from PoolParty, USA - Certified in Semantic Web Technologies from openHPI, USA - Certified in Web of Data (Semantic Web) from Coursera, USA - Certified in Django and Python from Eduonix - Certified in Data Studio from Google Academy.	**Project 1: Data Science Project from an initiative IBM**
	  1. **Cab Fare Prediction,**
	  2. **Cancer detection,**
	  3. **Predicting economic trends,**
	  4. **Predicting customer churn**
	  5. **Recommendation Engines**
	   - Project Type: Data Science R / Python - Skills which are include regression, classification, clustering, scikit learn, scipy for Data analysis using descriptive analysis model is built in Python or R. **Project 2: MultiDialectal Ontology supporting NLP for Maxicon**
	   - Project Type: Data Science Python - The objective of this research work for translating government document of maxicon regional language to state language to electronic communication with the Mexicon Ethic Groups. **Project 2: Knowledge Graph Generating using NLP on COVID19 Dataset**
	   - Project Type: Data Science Python - The objective of this tool to generate knowledge graph based on WHO covid19 dataset and identify entity and relationship into visualization in image format and also get information through question and answering from covid19 based tweeter tweet.. **Project 2: Question-Answering Tools for Indian Missile using Flask with Neo4j**
	   - Project Type: Flask Python & Neo4j - The objective of this to graphical represent of neo4j cypher queries based question into graphical answer. **Project 3: Python Project**
	  1. **Face Recognized (Project Type: Image Processing)**
	  2. **Employee Leave Management System (Project Type: Django Framework)**
	   - Project URL: https://github.com/ronupanchal - Development using OpenCV library, developer can capture face 30 images and store in yml file and face recognised using webcam for future used like attendance. Python Django framework with MySQL CRUD Operations **Project 5: To Predict individual medical costs billed by health insurance**
	   - Project Type: Artificial Intelligent (AI) Data Science - Project URL: https://github.com/ronupanchal/ML_Algorithm_code - Linear Regression is Supervised learning the algorithm used when the target/dependent the variable is continuous in real numbers. It finds a relationship between the dependent variable y and one or more independent variable x using the best fit line. - It works on the principle of Ordinary Least Square(OLS) or Means squared Error (MSE). In Statistics, OLS is a method to estimate unknown parameters of the linear regression function, its goal is to minimize the sum of square differences between observed dependent variables in the given data set and those predicted by the linear regression algorithm **Project 4: AISHE Semantic Web Enable Ontology (Ph.D. work)**
	   - Period: August 2016 – Sept 2020 - Project Type: Artificial Intelligent (AI) Semantic Web and Ontology - Project URL: https://github.com/ronupanchal/AISHE_SEMANTICE_WEB - Developed Ph.D project in domain of All India Survey of Higher Education (AISHE) using PHP, Protege, Apache Jena Fuseki, easyRDF, SPARQL, Docker, , Widoco, GraphDB, Virtual Private Server and Ontology Database. - Ontology, JSON-LD, SHACL, RDF, Apache JENA Fuseki, SPARQL, GraphDB, Top Quadrant EDG and Data Science works on Fiverr

LANGUAGE	**CAREER HIGHLIGHTS**
- English - Hindi - Gujarati	Data Scientist with 5+ years of experience executing data-driven solutions to increase efficiency, accuracy, and utility of internal data processing.

	Experienced at creating data regression models, using predictive data modelling, and analyzing data mining algorithms to deliver insights and implement action-oriented solutions to complex business problems.
Publications	**AWARDS & HONORS**
10th Books 28rd Research Papers in International and National Scopus / Springer / ACM or UGC approved Journal	- Consistently ranked in the 1st of my BSc Computer Science class from 2003 to 2006. - Published **10th Books** (DBMS, Information system and Computer Application - I, III,IV,VI, Fundamental of E-Business) - Published 20 Research Papers in National and International Journals - PG Recognised from Veer Narmad South Gujarat University, Surat - Visiting faculty in IGNOU, Baba saheb ambedkar Open University (BCA and MCA Course)
DECLARATION	

I, RONAKKUMAR KANTILAL PANCHAL, hereby declare that the information contained herein is true and correct to the best of my knowledge and belief.

RONAKKUMAR KANTILAL PANCHAL
BARDOLI, Gujarat
APRIL 05, 2021