

# IVANA GERCHAKOVA

# Data Scientist | Project Manager | Procurement Specialist

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### **EDUCATION**

#### **Data Science Academy**

Brainster, Educational Centar in Skopje, Data Scientist (2022-2023).

Key Learning: SQL, DWH, Power BI, Python, TensorFlow, Keras, Mathematics, Statistics, Machine Learning, Deep Neural Networks, Natural Language Processing, Computer Vision, Big Data.

### **Academy Achievements:**



**Best Student** at Data Science Academy



First Place Winner, Final Academy **ML Project** 

### University "St. Cyril and Methodius," **Faculty of Forestry**

Bachelor of Engineering in the Wood Industry, specializing in Furniture and Interior Design Technology.

# SKILLS

Trustworthiness, loyalty, analytical thinking, responsibility, industriousness, perseverance.

#### **Work Style:**

High organization, professionalism, thoroughness, dedication, openness to different ideas and perspectives.

# LANGUAGES

Macedonian, Serbian, English, Spanish

# **HOBBIES**

Triathlon, Photography, Ultra Running, Yoga and Meditation, Reading books.

# **ACHIEVEMENTS**

-Business model for Coffee grounds to grow Mushrooms - 2ND PLACE, by Startup Weekend Skopje. (2023)

-Business model for Application that allows users to contribute to covering monthly therapy costs by Women in Tech Macedonia. (2023), Ways2Help

## **ABOUT ME**

#### **Data Scientist**

Certified Data Scientist skilled in Python for data analysis, modeling, and machine learning. Extracting valuable insights from complex datasets to drive informed decision-making.

#### **Project Manager/ Data Analyst**

Experienced professional with a 5 year track record in project management, process optimization, and ensuring project success.

#### <u>Procurement Specialist</u>

Dedicated professional with 6+ years of expertise in strategic pricing, cost estimation, public procurement, and tender preparation.

### PROFESSIONAL EXPERIENCE

### Mentorness | Machine Learning Internship, March 2024 – April 2024 Key responsibilities:

- 1. Article on Machine Learning:
- Feature Importance: Methods to determine the importance of features in machine learning models.
- 2. Project Name: Prediction for Credit Card Approval:
- Exploratory Data Analysis (EDA), Feature Engineering, Data Preprocessing, Machine Learning Model Development, Model Evaluation.
- 3. Project Name: Sales Forecasting for Furniture Store:
- Time Series Data, Checking Components of Time Series, Forecasting Techniques, Visualization in Time Series.

### Freelance | Data Analyst / ML, December 2023 – April 2024 ML/AI-Powered Speech Recognition Project on the Macedonian language Key responsibilities:

- A comprehensive data science project focused on speech recognition, encompassing data collection, cleaning, and processing.
- Utilizing the Common Voice Mozilla platform for collecting speech data, and managing the recording of sentences from a generated list, ensuring compatibility with the OpenAI API for Whisper Speech Recognition.
- Applying advanced natural language processing (NLP) algorithms to assess accuracy metrics by comparing transcribed texts with ground truth texts, utilizing various distance measures..
- Researching to identify and implement suitable algorithms/formulas for evaluating speech recognition accuracy in the context of the project.

### Civil Engineering Institute Macedonia - CEIM | Project Manager /Data Analyst, 2019 - Present

### <u>Key responsibilities:</u>

- Analyzed designs, specifications, and plans.
- Ensured compliance with standards and regulations.
- Assessed feasibility, site suitability, and grid connection.
- Ensured environmental adherence.
- Identified risks and collaborated with management.
- Provided ongoing technical guidance.
- Prepared technical due-diligence reports.
- Monitored progress and reported to banks.
- Investigated project sites for suitability and risks.
- Analyzed site information and legal deeds.

### **PROFESSIONAL EXPERIENCE**

#### Civil Engineering Institute Macedonia - CEIM | Procurement Specialist, 2013 - 2019

#### **Key responsibilities:**

- Prepared competitive tender documents for optimal bid profitability.
- Formulated cost estimates, prices, discounts, and benefits in line with company policies.
- Participated in organized tender events, ensuring compliance with regulations.
- Established communication with potential service users.
- Collaborated with Sales Managers for high-quality tender preparation.
- Monitored daily reports for comprehensive tender documentation.
- Managed tender status and analyzed awarded situations.
- Prioritized confidentiality in all assignments.

### PROJECT EXPERIENCE

### Brainster Academy | Data Scientist | Data Analyst , 2022 - 2023

- <u>SQL:</u> Database management, optimization, and crafting complex queries for efficient data extraction and analysis.
- **<u>Data Warehouse:</u>** ETL processes and data modeling, data flow, optimized databases, and maintaining high-quality data through profiling and validation techniques.
- <u>PowerBi:</u> Crafting interactive dashboards and reports, utilizing data connectivity, transformation, DAX, and storytelling
  to convey complex information for informed decision-making.
  - <u>IT.mk Report Project PowerBi:</u> Identified valuable patterns and correlations through data analysis, contributing to informed decision-making and strategic planning in the IT domain.
- <u>Python:</u>(NumPy, Pandas, Matplotlib) for efficient manipulation, analysis, and visualization of complex datasets, with a focus on data pre-processing, statistical analysis, and creating visualizations to inform data-driven strategies.
- Mathematics and Statistics: Mathematical modeling and statistical analysis for complex datasets, utilizing advanced methods to validate hypotheses and draw meaningful conclusions.
  - **48h Hackathon for patients with elevated blood pressure:** Based on tests, hypotheses, and model predictions, we conclude the treatment affects patients with high blood pressure. A difference is noticeable between day-one and six-month blood pressure measurements.
- <u>Machine Learning:</u> Applied supervised and unsupervised learning techniques, including feature engineering, for
  accurate predictions and uncovering hidden patterns. Scikit-learn and TensorFlow, with expertise in implementing
  complex algorithms and neural networks.
  - <u>Ist place Impala Research, Predictive Eye Tracking Integration:</u> Machine learning model performance analysis, revealing Neural Networks as the top-performing choice, surpassing DT, RF, and KNN in predictive accuracy and overall effectiveness.
- <u>Big Data</u>: Collecting, processing, and analyzing large datasets using Hadoop and Spark, with a focus on optimizing
  data pipelines and implementing machine learning algorithms for actionable insights.

# **HACKATHONS**

#### Women in Tech Macedonia, Ways2Help | Data Scientist | Data Analyst , December 2023

We've been working on expanding Ways2Help.us, introducing a feature to provide medications to those in need. Our focus is on supporting vulnerable families and individuals with disabilities. The application allows users to contribute to covering monthly therapy costs, fostering a community of support.

#### Startup Weekend Skopje | Data Scientist | Data Analyst , October 2023, 2nd place

58 hours Techstars Startup Weekend event, including the learning of idea to product Business model canvas, Idea validation.Our concept involves repurposing used coffee grounds from local establishments to cultivate mushrooms, promoting a circular economy that reduces waste and minimizes environmental impact. Our goal is to produce eco-friendly, high-quality food, contributing to a healthier community and a stronger local economy.

# **CERTIFICATIONS**

#### Coursera | IBM Data Engineering Professional Certificate, May 2024 - Present

- Creating, designing, & and managing relational databases & and applying database administration (DBA)
  concepts to RDBMSs such as MySQL, PostgreSQL, and IBM Db2
- Developing knowledge of NoSQL and Big Data using MongoDB, Cassandra, Cloudant, Hadoop, Apache Spark, Spark SQL, Spark ML, and Spark Streaming.
- Implementing ETL and data Pipelines with Bash, Airflow, and Kafka; architect, populating, and deploying Data Warehouses; creating BI reports & interactive dashboards.

# **VOLUNTEERING**

**Al Tech Summit Skopje**, **September 2023** Organizing and executing a successful Al summit, coordinating speaker sessions, and panel discussions.