

Google Summer of Code 2021

Umbrella Organization

Introduction

Personal Information

Full Name | Eljan Mahammadli

Education | 3rd Year Bachelor in Computer Engineering Student, Khazar University, Azerbaijan, Baku |

Email | eljanmahammadli@gmail.com

Phone +994 51 999 48 95

Github | <https://github.com/eljanmahammadli>

Programming Languages | Python, Java, C, Javascript

Address | Shirin Mirzayev 32, Nizami, Baku, Azerbaijan

About Me

Hello, my name is Eljan Mahammadli and I study Computer engineering. I was born and grew up in Beylagan before moving to Baku to pursue my higher education. I am interested in data science, deep learning and machine learning. I have experience in this nearly one year. I am working as a teaching assistant and academic mentor in one of the famous Data Science Academy in Azerbaijan. I am also doing research in the Data Science Lab that belongs to Data Science Academy.

Personal Profile

Data Science Intern with 1 year of experience leveraging statistical modelling, data visualization, data processing, data mining, web scraping, machine learning algorithms and natural language processing to solve challenging business problems. Also, can create web applications and games with Java.

My favorite programming languages are Python and Java. I think Python is a great language since it has a simple syntax and doesn't require any memory management. Besides, it is one of the most frequently used languages in machine learning, deep learning, data science, data analytics. I also enjoy working with Java, I can create desktop applications and games using it.

I have recently worked on several data science and machine learning projects such as :

Churn Prediction, Bank customers loyalty, House prices prediction, Cancer prediction, Sentiments analysis, Spell recommender, Cat vs Non-cat, Nasa asteroid hazardousness, Covid 19 prediction and analysis and etc.

Why an Umbrella Organization GSoC Project ?

For the last decade, Artificial Intelligence has been growing really fast in many different fields.

Data science and machine learning have a wide range of applications in both our everyday life but also for scientific research. From childhood I love to play with numbers, do mathematical exercises and assume some predictions. Artificial Intelligence always was making me excited. Then I started to learn Data Science and tools for applying it. Since then, I have wanted to develop my machine learning skills and increase my knowledge about deep learning. That's why I have chosen to apply to this topic. I would be very proud to have Umbrella Organization be my first open-source contribution. As an enthusiastic knowledge seeker, I think that GSoC is a great opportunity for me to learn more about machine learning.

How much time will I be able to contribute to this project ?

I will be working 35 to 40 hours per week from the beginning of the project until the end.

Other commitments during summer

I will be also preparing for my final exams and doing research, developing some artificial intelligence in the Data Science Lab in Baku.

Preferred medium for communication

I am reachable via Email, FaceTime or any other similar medium of communication. My preferred languages for communication are English and Turkish.

Umbrella Organization is one of the research and development projects that makes me excited in the field of data science and machine learning. I would like to be someone who would be pleased to contribute with other developers, engineers and students to make something great.

Project

I want to mention that I can work in any of the current projects dealing with datasets, research, machine learning, deep learning, data analytics.

Below I leave my skills and experiences

Programming Skills

Hands-on SQL and PL/SQL experience

Python and Java experience

Background of OOP concepts

Extensive knowledge and experience in Scrapy, Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn, NLTK and TensorFlow

Working knowledge of C and Javascript

Skills

Jupyter Notebook

Excellent problem solver

Project Management
MS Office programs
Data Analysis
Data Pre-processing
NLP
Database Management
Model Building
Machine Learning
Deep Learning
Game Development

My experiences in Data Science Academy as a Intern and Academic Mentor

Data Science Intern

Data Understanding and process formation from clients
Extensive hands-on with regression and classification techniques
Building baseline models for the requirements with necessary data preparation
Parameter tuning process for optimal model hyperparameters
Ensembling learning methods for the tuned models
Implemented Customer churn analysis models

Teaching Assistant

Assisted and mentored students in groups and on an individual basis
Providing project reviews and help support students outside of their main lessons
Writing well commented, modular code and encouraging participants too
Solving real-life data science problems, and working with large data sets
Preparing weekly
real case studies and homeworks for Python trainings

Academic Mentor

Individually working with participants to develop their analytical skills
Demonstrated how to interpret data, analyze results using statistical technique
Applied predictive modeling, data processing, and data mining algorithms using Python in weekly Case Studies
Worked closely with the lead teacher to identify issues students are having and develop appropriate solutions