Curriculum vitae

PERSONAL INFORMATION

Syuzanna Matevosyan

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https://symatevo.me www.linkedin.com/in/symatevo https://github.com/symatevo

EDUCATION AND TRAINING

01/09/2020-Present

BSc in Biophysics and Bioinformatics

Yerevan State University, Yerevan (Armenia)

- Developed key understanding of physics and informatics techniques, methods and applications in biomedical sciences through theoretical and practical courses. **CGPA: 17.96 on a scale of 20** (with missed assignments)

18/10/2020-Present

Data Science and Artificial Intelligence

42 International Coding School, Yerevan (Armenia)

- **Completed 31 hands-on projects** covering fundamentals of computer science (Function programs, Imperative programming and OOP, Shell, Unix, Web, System & Network administration) and pursued specialization in "Data Science and Artificial Intelligence" track.
- Learned to code and solve problems through sharing, collaboration, and mutual aid.

Projects: 1) ML-based brain-computer interface on EEG data (Total-Perspective-Vortex)
2) Human body movement model based on hierarchical modelling (HumanGL)

21/02/2022 – 30/06/2022

ERASMUS+ International Credit Mobility in Poland

Jagiellonian University, Krakow (Poland)

- **Earned 22 credits** in degree-related courses included "Introduction to Biomedical Technologies" and hands-on analysis of Dystrophin-Deficient Cardiomyocytes in Laboratory of Bioinformatics and Genome Biology.
- Improved flexibility, creativity, and communication in English both in international and professional environment.

GPA: 4.5 on a scale of 5 *(Transcript of Records)*

Project: Proteomics and Transcriptomics of Dystrophin-Deficient Cardiomyocytes in R (DMD)

06/10/2023-11/12/2023

Certificate for Participation in "AI in Medical Diagnosis"

DeepLearning.AI, (Coursera)

- Learned advanced usage of AI in medical imaging to overcome various challenges, detect diseases with computer vision, evaluate medical models and perform image segmentation on MRI images.
- Passed practical assignments using theoretical concepts.

29/07/2021 – 04/08/2021

Certificate for Participation in "Introduction to AI"

University of Cork, Cork (Ireland)

- Studied the principles and terminology of Artificial Intelligence and Machine Learning.

18/07/2018 – 20/07/2018

Young Scientists Club NAS RA

"Armbiotechnology" NAS RA (National Academy of Sciences of the Republic of Armena)

- Developed research-project during "Gene Cloning and Expression" summer school about bioinformatics tools that used in genetics to study gene expression.
- Presented during "Genetics achievements" conference in Yerevan State Medical University.

WORK EXPERIENCE

01/12/2022 - Present

Biomedical Engineer in Armbionics Rehabilitation Engineering Startup

Project: User-centric myoelectric prosthesis enabling upper-limb advance control for below-elbow amputees. Worked on different solutions to create a cost-effective, multi-movement classifier that fine-tunes to user's experience using ML/Python stack.

Responsibilities:
- Designed and implemented an EMG-based classifier.
- Created proposals to minimize cost and increase the effectiveness of existing solutions.
- Improved business strategy and decision-making.

Teck Stack, tools, and practices:
- Data Acquisition
- Preprocessing
- Dimension Reduction
- Feature selection
- Evaluation
- Market Analyse
- Competitive Analyse

Co-authored article: "EMG Signal Classification for Upper Limb Prostheses: A Comparison of Machine Learning Algorithms" (Under Review)
Code: *https://github.com/symatevo/EMG-Signals-Classification* (Full version will be publicly available after publication)

01/02/2023 – 30/06/2023

AI-Based Radiological Web Application Development during TUMO Labs Incubator

Project: AI-powered web assistant is an "all-in-one" platform enabling radiologists to detect abnormalities and write better, faster and more accurate medical reports. It enhances diagnostic accuracy and streamlines the radiology workflow, ultimately leading to improved patient outcomes.

Responsibilities:
- Developed idea after visiting 7+ hospitals.
- Developed Value Proposition, Customer Segmentation, Key Partners, and Business Model with team members.
- Took Product-orientation on planning phase. Created Product Development Roadmap, Functionalities & Mock Up, Revenue Stream
- Collected chest x-ray data (open source & through partnerships with hospitals
- Led team of 5 engineers and built the low-MVP model, designed product features

Soft and Teck Stack, methods, tools practices:
- Business & Strategic thinking
- Leadership models, Agile methodology
- Partnership with stakeholders.
- Hospitals and clinics operations.
- Regulatory framework and policy.
- Healthcare market analysis.
- Product Development Lifecycle
- Front-end & Model deployment
- Jira, Figma, ML/Python
- PyTorch

Product One Pager: AI Radiologist Assistant Platform Description
Code*:* *https://github.com/symatevo/Chest-Xray-Mass-Detection* (Available on local host)

10/10/2021 – 30/11/2022

Research Student in Bioinformatics Group at ISEC NAS RA

Bioinformatics Group of the International Scientific and Educational Center NAS RA
Collaborated on different scientific activities in structural, systematic, and population bioinformatics.

Responsibilities:
- Simulated biomedical models and developed scripts to calculate metrics in 3D models.
- Collaborated with other labs to study mitogenomic, proteomic and structural aspects of mitochondrial DNA in Armenian population.

Tech Stack, tools, and practices:
- Molecular dynamics visualization
- VMD, pyMOL
- GROMACS
- EMBOSS Explorer
- MitoMap, Haplogrep, mtodata

Co-authored article: "TCL Programming Language in Bioinformatics" in "In the World of Science" Journal 2, 2022
Recommendation letter from Group Scientific Supervisor/Leader:: *Letter*

LANGUAGE SKILLS

Mother tongue(s) Armenia

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Proficient	Independent	Proficient	Proficient	Proficient
Russian	Proficient	Proficient	Independent	Independent	Proficient
German	Basic	Basic	Basic	Basic	Basic

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Signature

December 30,2023

Date