ZAHRA AMINOLROAYA *(SHE/HER)*

@ z.aminolroaya@gmail.com · 📍 Calgary, Alberta, Canada · in LinkedIn Profile · StackOverflow Profile

EXPERIENCE

Data Scientist (Part time)
Clinical Research Unit, Cumming School of Medicine (UCalgary)

📅 May 2019 – Ongoing   📍 Calgary, Canada

- Engaged in creating predictive models for surgical outcomes and patient mortality
- Experienced in evaluating and interpreting client satisfaction data
- Web data pulling, text preprocessing, storage, and information extraction from structured and unstructured data
- Skills: REST APIs · A/B testing · NLTK · transformers · NLP · Data Science · Python (Programming Language) · Machine Learning · AWS s3 · TensorFlow · spaCy · Scikit-Learn

Research Assistant
ASE Lab, University of Calgary (UCalgary)

📅 January 2019 – Ongoing   📍 Calgary, Canada

- Specializing in the design and evaluation of augmented and virtual reality (AR/VR) systems
- Currently working on an innovative tool for the treatment of epilepsy using AR/VR technology
- Utilizing design methodologies and user-centered evaluation techniques
- Skills: Virtual Reality (VR) · Augmented Reality (AR) · Human Computer Interaction · Information Visualization · Research · Healthcare · Epilepsy · Unity

R & D Engineer
Dataak

📅 Dec 2017 – Nov 2018   📍 Tehran, Iran

- Big data pulling, text preprocessing, storage, and information extraction from structured and unstructured data
- Experience with data indexing and retrieval using Solr
- Skilled in data pipelining using the Airflow workflow management platform
- Skills: · Apache Solr · Apache Airflow · Grafana · SQL · Java · Rest APIs

Data Scientist
Dayche Data Mining Group

📅 Sep 2016 – Dec 2017   📍 Tehran, Iran

- Experience in utilizing NLP and data mining techniques for a customer relationship management problem and getting insights from patient data.
- Skills: Unsupervised Learning · Natural Language Processing (NLP) · Data Science · R (Programming Language) · R Shiny

R & D Engineer
Cyber Space Research Center at Shahid Beheshti University

📅 Aug 2015 – Sep 2016   📍 Tehran, Iran

INTERESTS

- Natural Language Processing (NLP)
- Data science
- Data Engineering
- Extended reality (AR/VR)

STRENGTHS

- Programming

Python · R · SQL · JAVA · C# · Matlab

- WEB

REST API · HTML / CSS · Javascript

- Platforms

Apache Solr · Unity · Jira · Tableau · AWS · GitHub · Gephi

- Libraries

Apache Lucene · Hugging Face · transformers · spaCy · scikit-learn · NumPy · Pandas · NLTK · tensorflow · D3.js · R Shiny

- Some Projects

Sentiment and emotion analysis (NLP) · Epilepsy Surgery Prediction (NLP) · Death Prediction (ML) · Plagiarism Detection (NLP) · Customer Loyalty Categorization (ML) · Pharmacy Data Unification (NLP) · Data indexing and retrieval (Data Engineering) · Information Propagation Detection (ML) · Epilepsy Presurgical Evaluation (VR)

- Others

Git · Apache Airflow · Grafana · CQL

- Developed skills in plagiarism detection using NLP techniques
- Familiarity with both relational and non-relational databases, such as SQL, Cassandra and Solr
- Skills: Natural Language Processing (NLP) · Plagiarism Detection · NoSQL · Solr · C# · SQL

PUBLICATIONS

[1] Alireza Talebpour, Mohammad Shirzadi Laskoukelayeh, and **Zahra Aminolroaya**. 2016. Plagiarism detection based on a novel trie-based approach. Forum for Information Retrieval Evaluation. Springer, Cham. DOI: 10.1007/978-3-319-73606-8_8

[2] **Zahra Aminolroaya** and A. Katanforoush. 2017. How Iranian Instagram users act for parliament election campaign? A study based on followee network, International Conference on Web Research (ICWR), pp. 1-6. DOI: 10.1109/ICWR.2017.7959297.

[3] Lorans Alabood, **Zahra Aminolroaya**, Dianna Yim, Omar Addam, and Frank Maurer. 2022. A systematic literature review of the Design Critique method. Information and Software Technology (2022)

[4] **Zahra Aminolroaya**, Wesley Willett, Colin B. Josephson, Samuel Wiebe, and Frank Maurer. 2022. Watch The Videos Whenever You Have Time: Asynchronously Involving Neurologists In VR Prototyping, AVI Conference 2022. DOI: https://doi.org/10.1145/3531073.3531181

[5] **Zahra Aminolroaya**, Seher Dawar, Colin B. Josephson, Samuel Wiebe, and Frank Maurer. 2020. Virtual Reality for Understanding Multidimensional Spatiotemporal Phenomena in Neuroscience. In Companion Proceedings of the 2020 Conference on Interactive Surfaces and Spaces (ISS '20). Association for Computing Machinery, New York, NY, USA, 85–89. DOI:https://doi.org/10.1145/3380867.3426423

[6] **Zahra Aminolroaya**, Samuel Wiebe, Colin Bruce Josephson, Hannah Sloan, Christian Roatis, Patrick Abou Gharib, and Frank Maurer, and Kun Feng. 2019.EPES: Seizure Propagation Analysis in an Immersive Environment. In Proceedings of the 2019 ACM International Conference on Interactive Surfaces and Spaces (ISS '19). Association for Computing Machinery, New York, NY, USA, 331–334. DOI:https://doi.org/10.1145/3343055.3360745

HONORS

Alberta Innovates Graduate Student Scholarships

📅 2020   📍 Calgary, Canada
- Amount: $18,000 for the first year and $31,000 for the second year

Alberta Graduate Excellence Scholarship (AGES)
International students
📅 2020   📍 Calgary, Canada
- Amount: $15000

Ranked 3rd among all Undergraduate and graduate (BS, MSc)
Shahid Beheshti University
📅 2014, 2016   📍 Tehran, Iran
- Entered graduate school without any entrance exam

EDUCATION

PhD. in Computer Science
University of Calgary
📅 January 2019 – 2023
- Thesis Topic: Immersive Environments for Understanding an Event Propagation in Space and Time
- Supervisors: Frank Maurer, Ph.D and Samuel Wiebe, MD
- GPA 4/4

M.Sc. in Computer Science
University of Shahid Beheshti
📅 2014 – 2016   📍 Tehran, Iran
- Thesis Topic: Uncovering the Structure and Temporal Dynamics of Information Propagation
- Supervisor: Ali Katanforoush, Ph.D
- GPA 4/4

B.Sc. in Computer Science
University of Shahid Beheshti
📅 2010 – 2014   📍 Tehran, Iran
- GPA 4/4

VOLUNTEER EXPERIENCE

Presenter
1st Canadian Pediatric SEEG Course
📅 2022   📍 Calgary, Canada

Vice-President Academic
Computer Science Graduate Society - UCalgary
📅 2020 – 2021   📍 Calgary, Canada

Graduate student representative
Computer Science Graduate Affairs Committee - UCalgary
📅 2020 – 2021   📍 Calgary, Canada

Mentor of Highschool Students
2050 Project
📅 2019   📍 Banff, Canada