Saeed Najafi

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CONTACT

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RECENT INTERESTS

Natural Language Processing:
Question Generation, Relation Extraction, Reading Comprehension, Semantic Parsing, Sequence Labeling, Structured Prediction

Machine Learning:
Time Series, State-Space Models, Approximate Inference

WORK EXPERIENCE

Software Engineering Intern (Summer 2022)
Google, Mountain View, United States.

- Developing NLP models for business messaging.

Machine Learning Engineer *2018-2020*
BenchSci, Toronto, Canada

- Developing NLP models for entity and relation extraction within bio-medial papers in order to gather use cases of protein reagents.
- Developing big data pipelines applying ML models in a distributed environment.
  Tech Stack: PySpark, Airflow, Ansible, BigQuery

Research Assistant (Summer 2018)
Diffbot, U of Alberta, Canada.

- Worked on fine-grained Named Entity recognition having thousand tags.
- Advisor: Denilson Barbosa

Python Developer (Summer 2015)
RCDAT, Tehran, Iran

- Developed web application to control TV gateway.

EDUCATION

Ph.D. in Computing Science *2020 -*
University of Alberta, Edmonton, Canada

- **Advisor**: Alona Fyshe
- Current Project: "Weakly-Supervised Questions for Unseen Relations"

- **Taken Courses**:
  Probabilistic Graphical Models (A), Combinatorial Optimization (A-), Reinforcement Learning I & II (A-)

M.Sc. in Computing Science *2016-2018*
University of Alberta, Edmonton, Canada

- **Advisors**: Greg Kondrak & Colin Cherry
- **Thesis**: "Sequence Labeling and Transduction with Output-Adjusted Actor-Critic Training of RNNs"
- **Taken Courses**:
  Natural Language Processing (A), Data Mining in Rich Data (A)
  Software Product Lines (A), Managing Big Text Data (A-), Teaching & Research Methods

Bachelor of Science in Software Engineering *2012-2016*
Amirkabir University of Technology, Tehran, Iran

- **GPA**: 17.69/20
- **Advisor**: Reza Safabakhsh
- **Thesis**: "Predicating ATM Machines Faults"
- **Notable Course Grades**:
  B.Sc. Project 20 - Data Structures and Algorithms 20 - Math. (II) 19.75
  Operating Systems Design 19.75 - Electric Circuits (I) 19.7 - General Physics (I) 19.5
  Principles of Database Design 19.4 - Design of Programming Languages 19.0 - Logic Circuits 19
  Electronic Circuits 19 - General Physics (II) 18.85 - Machine Language Programming 18.74
  Foundations of Data Mining 18.6 - Software Engineering 18.5 - Information Security 18.5
  Internet Engineering 18.25 - Artificial Intelligence 18.0 - B.Sc. Internship 18
  Engineering Statistics 17.8 - Computer Architecture 17.8 - Advanced Computer Programming 17.5
  Theory of Machines and Languages 17.5 - Data Storage and Retrieval 17.0 - Discrete Structures 17.0

PUBLICATIONS

- "Efficient Sequence Labeling with Actor-Critic Training"
  (CAIAC 2019, paper)
- "String Transduction with Target Language Models and Insertion handling"
  (SIGMORPHON @ EMNLP 2018, paper)
- "Combining Neural and Non-Neural Methods for Low-Resource Morphological Reinflection"
  (CoNLL-SIGMORPHON @ EMNLP 2018, paper)
- "Comparison of Assorted Models for Transliteration"
  (NEWS @ ACL 2018, paper)
- "If you can't beat them, join them: the University of Alberta system description"
  (CoNLL-SIGMORPHON @ ACL 2017, paper)

TEACHING ASSISTANT

- Introduction to Database Systems – U of Alberta (*Falls 2016 & 2017* & 2020)
- Advanced Database Systems – U of Alberta (*Winters 2017 & 2018 & 2022*)
- C Programming Language – U of Alberta (*Winter 2018*)

- Web Development – Amirkabir U of Technology (*Fall 2015*)
- Computer Architecture – Amirkabir U of Technology (*Spring 2015*)

HONOURS & AWARDS

- The University of Alberta Doctoral Recruitment Award (*$5000 - September 2020*)
- Travel grant for CAIAC conference. (*May 2019*)
- Travel grant for ACL conference. (*August 2017*)
- Honorary direct admission to the graduate school of Amirkabir U of Technology having high undergraduate GPA (10/120). (*June 2015*)
- Ranked among the top 0.5% in the university entrance exam. (*July 2012*)
- Semi-finalist at Iranian National Mathematics Olympiad (2010 and 2011)

MISC.

- **Talks**:
  Bag of Tasks in NLP (Summer School, U of Alberta, Summer 2018)
  Introduction to NER (CMPUT 650, U of Alberta, Fall 2018)
- **Reviewer**: *ACL*, *NAACL-HLT*, *EMNLP*, IJCNLP, EACL
- **Current Dev Stack**: *Python, PyTorch, SQLite*
- **TOEFL**: *106/120*
- **Languages**: *English, Persian, Azeri*
- **Sports**: *Soccer, Running, Cycling, Volleyball, Ski, Hiking*
- **Citizenship**: Iranian (Citizen), Canadian (Permanent Resident)