

# Kian Ahrabian

## Current Position

School of Computer Science  
McGill University  
Montreal, Canada

## Contact Info

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## Research Interests

Machine Learning  
Natural Languages Processing  
Information Retrieval  
Software Engineering

## Education

**McGill University**, M.Sc. in Computer Science 2019 - Now  
**University of Tehran**, B.Sc. in Computer Science 2014 - 2018  
GPA: **17.90/20**, Ranked **2nd (out of 33)**  
Thesis: **A Survey on Autoencoders with focus on Online Signature Verification**, Under supervision of Dr. B. Babaali.  
**Allameh Helli High School**, Diploma in Mathematics and Physics Discipline 2010 - 2014  
Affiliated with the National Organization for the Development of Exceptional Talents (NODET)  
GPA: **19.2/20**

## Research Experiences

McGill University, **Knowledge Enhanced Software Connectivity Lab** Jan 2019 - Now  
University of Tehran, **Online Signature Verification** Jan 2017 - Dec 2017  
My research was focused on developing general-purpose frameworks for the verification tasks with deep models, especially by utilizing Recurrent Autoencoders and Siamese Networks.  
University of Tehran, **Persian OCR** Sep 2016 - Jan 2017  
Research assistant of Dr. B. Babaali. His research is focused on building robust systems for Persian OCR using deep models, especially by utilizing the Convolutional Recurrent Neural Network.

## Publications

[1] Kian Ahrabian and Bagher BabaAli. "Usage of autoencoders and Siamese networks for online handwritten signature verification". In: *Neural Computing and Applications* (2018). ISSN: 1433-3058. DOI: 10.1007/s00521-018-3844-z. URL: <https://doi.org/10.1007/s00521-018-3844-z>.

## Teaching Experience (Teaching Assistant)

**COMP 303: Software Design**, McGill University Winter 2019  
**Bio-computing**, University of Tehran Fall 2017  
**Logic Circuits 1**, University of Tehran Spring 2017  
**Principals of Computer Systems**, University of Tehran Spring 2017  
**Data Structures and Algorithms**, University of Tehran Spring 2017  
**Data Structures and Algorithms**, University of Tehran Fall 2016  
**Introduction to Computer Programming**, University of Tehran Fall 2016  
**Advanced Programming**, University of Tehran Spring 2016

## Awards and Honors

**Ranked 7th** in National Computer Science Master's Exam May 2018  
Recipient of **University of Tehran Foundation Fellowship** Sep 2015 - Jul 2018  
**Ranked 13th**, ACM ICPC Asia Tehran Regional Contest Nov 2015  
**Ranked 12th**, ACM ICPC Asia Tehran Regional Contest Dec 2014

<b>Professional Experiences</b>	<p>Cafe Bazaar, <b>Tech Lead</b> Feb 2018 - Jan 2019</p> <p>As a tech lead, I was responsible for the technical growth of team members, assurance of projects quality, knowledge sharing, building comprehensive technical solutions and coordinating technical vision in collaboration with the tech leads of other teams.</p> <ul style="list-style-type: none"> <li>- Led the recommendation team into building a scalable online recommender system with the ability to respond to thousands of requests on top of Kubernetes, Redis, and Django.</li> <li>- Led the user behavior team into building a system for gathering and storing action logs generated by clients with the ability to build chain actions in an online and stateful manner for analyzing users behaviors on top of Apache Spark (Spark Streaming and Spark SQL), Apache Kafka, Apache Hadoop, and Scala.</li> <li>- Led the big data task force into building a system for generating statistics based on the gathered data from clients on top of Apache Spark (Spark SQL), Apache Hadoop, and Python.</li> </ul>
	<p>Cafe Bazaar, <b>Data Engineer</b> Jun 2017 - Jan 2019</p> <p>As a data engineer, I was responsible for building solutions for gathering, processing and storing data generated by clients and servers in collaboration with various teams in Cafe Bazaar on top of big data solutions such as Apache Hadoop and Apache Spark. Also, I was responsible for providing the infrastructure and tools needed by data scientist and business intelligence teams to analyze the stored data such as Apache Zeppelin and Apache Hive.</p> <ul style="list-style-type: none"> <li>- Built the universal pipeline for gathering and storing data generated by clients and servers on top of Apache Kafka, Apache Hadoop, Python, and Golang.</li> <li>- Built a system for gathering and storing users applications data on top of Apache Kafka, Apache Cassandra, S3 Object Storage, Apache Spark (Spark Streaming), and Scala.</li> <li>- Setup multiple servers in a reusable manner with the business intelligence tools such as Metabase and Apache Superset on top of Docker.</li> <li>- Setup multiple servers in a reusable manner with the big data tools such as Apache Cassandra, Apache Hadoop, Apache Hive, Apache Cassandra, and Apache Zeppelin on top of Docker.</li> </ul>
	<p>Cafe Bazaar, <b>Software Engineer</b> Sep 2015 - Jun 2017</p> <p>As a software engineer, I was responsible for developing web applications in a full-stack manner for serving contents to end-users on top of Django, gRPC, Golang, Kubernetes, Docker, Redis, and PostgreSQL. Also, my responsibilities included maintenance of the codebase as the project owner. Besides, I was responsible for the maintenance and setup of the servers that run the projects.</p> <ul style="list-style-type: none"> <li>- Built a system for calculating statistics based on the gathered and stored data on top of Apache Cassandra, Apache Hadoop, Apache Spark, Redis, Python, and C++.</li> <li>- Built a scalable system for serving application updates with the ability to respond to thousands of requests in 1ms on top of the Kubernetes, Docker, Redis, gRPC, and Golang.</li> <li>- Built a universal development kit for easing the process of software development by giving the developers the tools to manage different projects and their dependencies with a centralized interface on top of the Docker and Python.</li> <li>- Built multiple micro-services as part of the developer's panel of Cafe Bazaar which handled the needs of the application developers such as product management in the marketplace, statistics visualization, and financial management on top of the Docker, Redis, PostgreSQL, S3 Object Storage, Django, and Python.</li> </ul>
	<p><b>Skills</b></p> <p><b>Programming Languages:</b> Python, C/C++, Java, Scala, Golang, SQL</p> <p><b>Libraries:</b> Keras, Tensorflow, Theano, Apache Spark, SciPy, Django, gRPC, JSON-RPC</p> <p><b>Tools:</b> Git, Vim, L<sup>A</sup>T<sub>E</sub>X, PostgreSQL, Redis, Docker, Kubernetes, Apache Cassandra, Apache Hadoop, Apache Kafka, Nginx</p> <p><b>Languages:</b> English (Fluent), Persian (Native), French (Limited Knowledge)</p>
	<p><b>Test Scores</b></p> <p><b>TOEFL</b> (17th September 2017) Total Score: <b>107/120</b>  Reading: 28/30, Listening: 29/30, Speaking: 23/30, Writing: 27/30</p> <p><b>GRE</b> (15th November 2017)  Verbal: 148/170 (39%), Quantitative: <b>170/170 (97%)</b>, Analytical Writing: 3.0/6.0 (18%)</p>
<b>Memberships</b>	<p><b>University of Tehran</b>, Computer Science Student Chapter Sep 2016 - Jul 2018</p>