

# SHAHRAM AKBARINASAJI

Toronto, ON

(437) 329-4248

[sakbarinasaji@tangerine.ca](mailto:sakbarinasaji@tangerine.ca)

- Professional Master's in Computer Science (Big Data), Simon Fraser University.
- Solid understanding of machine learning algorithms to build predictive models.
- 10 years of experience in software development, database design, and data wrangling.
- Big Data Developer with a strong background in Spark, Hadoop, and MapReduce.
- Proficient in algorithm design and object-oriented programming.
- Hands-on data management systems both structured and unstructured.

## SKILLS

<b>Programming</b>	Python, C#, VB, SAS, C, Git, Bash Script.
<b>Big Data &amp; Cloud</b>	Google Cloud Platform, Apache Spark, Airflow, Hadoop, Docker.
<b>Database</b>	BigQuery, SQL Server, DB2, HDFS, Cassandra, Hive.
<b>Data Analytics</b>	Pandas, NumPy, Matplotlib, Seaborn, Tableau, Highcharts.
<b>Machine Learning</b>	Scikit-Learn, Factor Analysis, TensorFlow, Keras, PyTorch.
<b>Web Design</b>	ASP.NET, HTML, CSS, JavaScript, jQuery, Bootstrap.

## PROFESSIONAL EXPERIENCE

- Tangerine Bank**, Toronto, ON • *Data Scientist* 05/2021 - Now
- Organized weekly meetings with stakeholders to understand business problems, present the results, discuss blockers, and receive feedback to apply and optimize model performances.
  - Built a Chequing cross-sell propensity model using XGBoost and AI Platform on a highly imbalanced dataset to help target high propensity customers which led to a 0.75% increase in the campaign response rate.
  - Created a clustering model using KMeans and Factor Analysis to segment customers based on their life cycle features which helped to better understand the customer needs and enabled a client-first approach.
  - Designed dashboards using Google Data Studio and BigQuery to visualize real-time and historical campaign performance.
- Scotiabank**, Toronto, ON • *Data Scientist, Pricing Analytics (COOP)* 09/2020 - 12/2020
- Developed an automated large-scale data pipeline to Extract, Transform, and Load (ETL) data from Enterprise Data Warehouse to GIC pricing model using **SAS, SQL, DB2, PySpark, Bash Script**, and **crontab**.
  - Monitored weekly data pipelines to machine learning models, resolved the incurred data issues in the ETL process, and generated 2 new data features that helped to optimize customer clustering models.
  - Performed Exploratory Data Analysis (EDA) on 7 years of GIC sales dataset to gain insights into customers' behavior on GIC laddering using **Python, Pandas, Matplotlib**, and **Seaborn**.
- Iranian Offshore Oil Company**, Tehran, Iran • *Web Application Designer and Developer* 03/2012 - 08/2019
- Interacted with stakeholders to get a high-level understanding of requirements, analyze requirements, and ensure alignment of requirements, application specifications, and database architectural design.
  - Implemented 8+ web applications like SSO, Dashboard, Work Order Automation, Inventory Management, etc. for different business lines using **C#, ASP.NET, MVC, EntityFramework, LINQ**.
  - Conducted data migration and Extract-Transform-Load (ETL) from legacy systems databases to the newly designed data models using SQL Server Integration Services (SSIS).

- Cooperated in the Key Performance Indicators (KPI) definition by writing **SQL** queries to aggregate data from multiple data sources and performing Exploratory Data Analysis (EDA) on the data using **Pandas**.
- Originated dashboards and reports to provide high-value information to stakeholders using **ASP.NET**, **C#**, **SQL**, **HighCharts**, **JSON**, **Stimulsoft Reports**, and **SQL Server Reporting Service (SSRS)**.

**OSVEH Computer Consultants**, Tehran, Iran • *Web Application Developer*

08/2010 - 02/2012

- Programmed core functionalities of 4+ web-based office automation applications and reports using **ASP.NET**, **C#**, **ADO.NET**, **HTML**, **CSS**, **JavaScript**, **Bootstrap**, and **Crystal Reports**.
- Implemented 5+ database models and entities including tables, views, stored procedures, and functions in **MS SQL Server** as well as writing **SQL** queries to aggregate data for reports using **SSMS**.
- Generated 10+ **RESTful APIs** using **C#** that enabled third-party applications to fetch real-time data.
- Instructed end-users regularly on using applications that aided them in leveraging features efficiently.

**OSVEH Computer Consultants**, Tehran, Iran • *Website Designer*

06/2009 - 07/2010

- Designed, developed, and improved websites' features continuously in collaboration with 4 developers.
- Leveraged **ASP.NET**, **C#**, **HTML5**, **CSS3**, and **Javascript** to design 5 cross-browser compatible websites.
- Redesigned and maintained 9 websites to align with requirements and capture new audiences.

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## ACADEMIC PROJECTS

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**HexaFace - A Deep Learning Web Portal for Facial Applications**

02/2020 - 04/2020

- Constructed the VGG-Face model architecture and exploited the pre-trained weights to obtain 2622 facial features using **Python**, **TensorFlow**, and **Keras**.
- Formed a **Siamese Neural Network** to compute Cosine and Euclidean distance for face verification.
- Initiated a web portal using **Django**, **HTML**, **Bootstrap**, and **jQuery** and deployed 6 deep learning models.

**Abstractive Text Summarization**

11/2019 - 12/2019

- Preprocessed Amazon product reviews (+142M rows) and GigaWords (+4M articles) datasets using **PySpark**.
- Setup 2 models, a seq-to-seq stacked **LSTM** using **TensorFlow** and Microsoft **UniLM** model using **PyTorch**.
- Applied transfer learning, fine-tuned 3 hyperparameters, and tested models on GigaWords and Amazon reviews dataset which enabled us to evaluate ROGUE scores from different fine-tuning parameters.

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## EDUCATION

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**M.Sc in Computer Science, Professional Master's Program in Big Data**

09/2019 - 04/2021

Simon Fraser University, Burnaby, BC

**M.Sc in Information Technology, Multimedia Systems**

09/2014 - 01/2017

Shahid Beheshti University, Tehran, Iran

**B.Sc in Computer Science**

01/2005 - 05/2009

Shahid Bahonar University, Kerman, Iran

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## CERTIFICATES

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- Natural Language Processing with Classification and Vector Spaces
- Modernizing Data Lakes and Data Warehouses with GCP
- Google Cloud Platform Big Data and Machine Learning Fundamentals
- Complete Tensorflow 2 and Keras Deep Learning Bootcamp