

Alireza Manashty

Lead Data Scientist
Canada

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EDUCATION

- **Ph.D. in Computer Science; University of New Brunswick** 2014 – 2018
Predictive Analytics in Health Monitoring (Thesis); GPA 4.1/4.3 NB, Canada
 - **Contributions:** Mapped years of multivariate sporadic health data into 32 elements for anomaly forecasting by developing a mathematical model. Enabled human fall forecasting upto 15s before the fall using LSTM.
- **M.Sc. in Computer Engineering (AI); Shahrood University of Technology** 2010 – 2012
Sign Language Recognition using RGB-D cameras (Thesis); GPA 3.7/4 (Rank 1/20)
 - **Coursework:** Machine Learning; Statistical Pattern Recognition; Computer Vision; Neural Networks; Fuzzy; AI
- **B.Sc. in Software Engineering; Razi University** 2006 – 2010
Smart House Remote Monitoring System (Thesis); GPA 3.7/4 (Rank 3/61)

EXPERIENCE

- **Data Scientist** June 2018 - Present
Department of Health, Government of New Brunswick Fredericton, Canada
 - **Prediction:** Forecasting physician retirements 5 years in-advance using machine learning techniques.
 - **NB Health Data:** Converting 10 years of diagnosis free-text to ICD-10 code using NLP and Deep Learning.
- **Lead Data Scientist** June 2018 - Present
IPSNP Computing Inc. Saint John, Canada
 - **Prediction:** Forecasting hospital admission and bed requirements for the largest emergency department in NB.
 - **Forecasting:** Predicting workers back-to-work probability upon admission for WorkSafeNB
- **Data Scientist** Feb 2018 - June 2018
CGS (Computer Generated Solutions) Canada Saint John, Canada
 - **Dell EMC Data Science Train the Trainer (TTT) Instructor:** Trained the Dell EMC's trainers for Data Science & Big Data Analytics v2 course using +500 slides and 12 labs over 5 days (40 hours). Reviewed and updated the learning materials and labs. Topics included statistical and analytical theories & big data tools.
 - **Virtual Big Data Lab development:** Created/Tested/Deployed the lab environment for Dell EMC DSBDv2 course using VMware ESXi server for Hadoop, Spark, R Server, and Greenplum database (4 virtual machines).
- **University Instructor, Research, and Teaching Assistant** Jan 2014 - June 2018
University of New Brunswick New Brunswick, Canada
 - **Lecturer and Lab Instructor:** Taught 16 Credits & 8 Lab hours for over 150 undergrad and graduate students.
 - **Courses:** Database Management Systems II — Operating Systems I — Computer Networking — Systems Software Development — C++ for Java Programmers — Honour's Project — Technical Report
 - **Graduate Research/Teaching Assistant:** Conducting research in Health Predictive Analytics @ Fall Lab
 - **Diploma of University Teaching:** Passed the teaching training and received the certificate @ UNB, Fall 2015

PROJECTS

- **QuantSoftware Toolkit:** Open source python library for financial data analysis and machine learning for finance.
- **Github Visualization:** Data Visualization of Git Log data using D3 to analyze project trends over time.
- **Recommendation System:** Music and Movie recommender systems using collaborative filtering on public datasets.
- **Mac Setup:** Book that gives step by step instructions on setting up developer environment on Mac OS.