

# Alireza Manashty

Full-stack Data Scientist  
Canada

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## SUMMARY

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7+ years of practical problem solving using machine learning. Providing predictive data science consultant to federal and provincial government and tech companies (e.g., Dell EMC).

- **Full-stack data scientist:** Provided complete solutions for problems, from business discovery, solution design, data acquisition (Sql/NoSql), modeling (R, Python, Java/C#, web), visualization, and deployment (local/cloud services))
- **University lecturer & professional trainer:** 7 years of teaching main computer science undergraduate courses.

## EDUCATION

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- **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 ToF depth 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

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- **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, May 2015

## MORE

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- **Microsoft Most Valuable Professional (MVP) in Azure:** Awarded in 2017 for community contributions.
- **Microsoft Azure Research:** Awarded a total of \$57,000 of Microsoft Azure Subscription for academic use.
- **Programming Languages—Skills:** C#, Java, Python, R, C++—Predictive Analytics, R&D, Management
- **MITACS Accelerate PhD Fellowship Intern (Java) :** Awarded \$90,000 industry fellowship, IPSNP Inc., NB, 2014.