

Alireza Manashty

Lead Data Scientist — PhD Candidate
Canada

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SUMMARY

7+ years of practical problem solving using machine learning. Helped federal and provincial government and tech companies (e.g., Dell EMC) by providing predictive data science consultant. Awarded Microsoft MVP in Azure.

- **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)
- **Instructor & professional trainer:** 7 years of teaching main CS undergraduate courses. Data science trainer.

EDUCATION

- **Ph.D. in Computer Science — University of New Brunswick** 2014 – 2018 (Pending defense)
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

- **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 (Consultant)** 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

- **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., 2014
- **Publication list (Google Scholar):** <https://scholar.google.ca/citations?user=oTFzSi0AAAAJ>