KEIVAN TORABI

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## Highlights of Qualifications and Skills:

* 19 years of experience in probabilistic safety, risk and reliability assessment in Nuclear, Hydroelectric, and Natural Gas industries for design-assist, maintenance optimization and operation support.
* 5 years of field engineering experienced in Oil & Gas industry.
* Experienced in development of Data Mining, Artificial Intelligence, Machine Learning, risk-informed applications, design of experiment and conducting statistical data analysis.
* Ph.D. in Data Mining, and computer Vision in engineering applications.
* Professional Engineer and Regional Councillor at the Professional Engineers Ontario (PEO)

## Career Details and Employment Background:

**Sep. 2015 – present**  **Reactor Safety Consultant**

#### Ontario Power Generation (OPG), Darlington Nuclear Generating Station

Supporting Darlington’s risk and reliability program

**Sep. 2011 – Sep. 2015** **Probabilistic Risk Assessment Team Lead**

#### Candu Energy Inc. (SNC-Lavalin) Ontario, Canada.

Conducting quantitative risk and safety assessment in CANDU reactors. Developing FMEA, FMECA, SPV, conducting hazard analysis, fault tree (FTA) and event tree analyses (ETA). Conducting statistical data analysis, human reliability analysis (HRA), and common cause failure analysis.

**Aug. 2007 – Sep. 2011** **Senior** **Probabilistic Risk Assessment Engineer**

#### Atomic Energy Canada Limited (AECL) Ontario, Canada.

Conducting nuclear risk and safety assessment in support of the advanced CANDU reactor (ACR-1000) and Enhanced CANDU6 (EC6) designs.

Developing FMEAs, hazard analysis, fault trees and event trees. Conducting statistical data analysis, human reliability analysis, and common cause failure analysis.

**Jan. 2003 – Aug. 2007** **Senior** **Probabilistic Risk Assessment Engineer**

#### AMEC, Toronto, Ontario, Canada

Conducting quantitative risk assessment, and maintenance optimization. Developing risk models and hazard assessment for liquefied natural gas processing plants.

Developing generation risk assessment models for nuclear power plants. Performing risk-informed data-mining models inspection prioritization.

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**May 1999 – Jan. 2003 Nuclear Power Plant Component Engineer (O&M Support)**

#### Ontario Power Generation Inc., Pickering, Ontario, Canada

Conducting motorized valve diagnostics, managing valve maintenance program, valve packing coordinator, and responding to station requirements for valve program.

**Aug. 1997 - May 1999** **Graduate Student & Research Assistant**

University of Toronto (Sponsored by Eastman Kodak,

Rochester, New York, USA)

Performing quantitative and statistical data analysis for polymer characterization.

**Sep. 1996 – May. 1997** **Process Engineer & Project Control Analyst**

PolyNar Corp. Iran. A petrochemical project, involving

relocation of a polypropylene plant from Germany (Hoechst) to Iran (PolyNar). Equipment sizing, and catalyst replacement. Coordinating engineering consultants, suppliers. Monitoring project costs, deliverables and schedule.

**Jun.1995 – Jun. 1996** **Project Engineer**

North Refining Co. Tehran, Iran.

Commissioning of a used-oil recovery and grease plant. Proposing process design modification, equipment sizing, laboratory equipment set-up and product formulation.

### Mar.1990 – Jan.1993 Product Development & Replacement - R&D Engineer

Pars Oil Co. Tehran, Iran.

Oil and grease product formulation and replacement, product development, formulation of anti-freeze and industrial oils.

## Educational Background:

**Sep. 2000 – Dec. 2004** **Ph.D. (Chemical Engineering),**

**Specialized in Data Mining, Statistical Data Analysis**

Department of Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, Canada

**Sep. 1997- May. 1999** **Master of Applied Science (Chemical Engineering) Specialized in Statistical Data Analysis**

Department of Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, Canada

**Sep. 1993- Dec. 1994** **Master of Science (Chemical Engineering) Specialized in Simulation and Computer Modeling** Department of Chemical Engineering;

Sharif University of Technology, Tehran, Iran

**Sep. 1985- Dec. 1989** **Bachelor of Science (Chemical Engineering)**

Department of Chemical Engineering

Shiraz University, Tehran, Iran