

Zahra Hatami

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Education

- **UNIVERSITY OF NEBRASKA AT OMAHA: Aug 2017-Aug 2022**
 - Ph.D. in Information Technology
- **UNIVERSITY OF NEBRASKA AT OMAHA: Jan 2015-Aug 2017**
 - Master of Science in Management Information System
- **UNIVERSITY OF NEBRASKA AT OMAHA: Aug 2012-Dec 2014**
 - Master of Science in Economics
- **ALLAMEH TABATABAEI UNIVERSITY, TEHRAN, IRAN: Oct 1999-Feb 2004**
 - B.Sc. Economics

Certificate

- **UNIVERSITY OF NEBRASKA AT OMAHA: Aug 2016**

- Certificate course in System Analysis and Design

Awards

- Received a **GRACA** (Graduate Research and Creative Activity) award of \$5,000 for the project entitled "Advanced Correlation Network Model (CNM) for analyzing financial markets", May 2019. University of Nebraska at Omaha, Omaha, USA.
- Received a **GRACA** (Graduate Research and Creative Activity) award of \$5,000 for the project entitled " A New Population Analysis Approach for Analyzing Financial Markets under Crises ", May 2020. University of Nebraska at Omaha, Omaha, USA.
- Certificate of best presentation for International Conference on Business, Economics and Finance

Poster Presentations

- Hatami, Z. (2020). "The identification of opinion leader in Facebook". Student Research and Creative Activity Fair, University of Nebraska at Omaha, March 6th, 2020.

Oral Presentation

- Hatami, Z. (2020). "Advanced Correlation Network Model (CNM) for analyzing financial markets". Student Research and Creative Activity Fair, University of Nebraska at Omaha, March 6th, 2020.
- Hatami, Z. (2022). "A Novel Population Analysis Approach for Analyzing Financial Markets under crisis". Student Research and Creative Activity Fair, University of Nebraska at Omaha, March 9th, 2022.

Academic Projects

- **Master Thesis-** "Towards an Understanding the Mental Model Process while Writing SQL queries,"

Thesis entails – The research attempts to discover what kinds of mental models’ users use and how these mental models develop while learning SQL for the purpose of finding better ways to teach these skills. By analyzing mental processes of users who are learning SQL, we can improve their knowledge of how to write SQL queries.

➤ **Environment** – Oracle SQL Developer, MS Excel: Jan 2015 – May 2015

- **Boston Housing using Applied Regression Techniques.**

Project involves applied Data reduction techniques – Stepwise regression which includes Building the Regression model -Model Selection and Validation (Predictive Modeling), Diagnostics and Remedial Issue.

➤ **Environment** - IBM SPSS, MS- Excel and SQL: Aug 2017 – Dec 2017

- **Effect on Reactor Efficiency using Factorial Design Machine Learning Techniques.**
Project involves finding key independent variable which significantly affect reactor efficiency using Factorial Design Methods.

➤ **Environment** – SAS programming, MS- Excel and SQL: Jan 2018 – May 2018

Professional Summary

- Data Analyst professional with more than 7 years of work experience in business data analysis and development. Extensive work involving Data Mining, Data Analysis and Advanced Data Analytics.
 - Master's degree in Management Information System & Economics with specialization in Database Management and System Design & Analysis from University of Nebraska at Omaha.
 - Solid knowledge in data modeling and expertise in building predictive models using regression, clustering algorithms in SPSS and R.
 - Adept with Data visualization & reporting tools like R, demonstrate insights by creating dashboards & ad hoc reports.

Core Competency

- **Software Development Methodology:** Agile, Waterfall, Scrum.
- **Analytical and Reporting Tools:** SAS, SPSS.
- **Relational Database:** Oracle SQL developer (11g & 12c), MySQL, PostgreSQL, MS Access.
- **Programming Languages:** R, PHP, SQL, IBM-SPSS, SAS, Java
- **Statistical Methodologies:** Cluster Analysis. Linear Regression and Multi-Linear Regression.
- **Mathematical statistics:** Confidence intervals, Inference, Maximum likelihood, ANOVA, Tests of Hypotheses and Fit Tests-CHAID.
- **Other Management Tools:** Microsoft Office (MS Excel-VBA, VLOOKUP), Version control Git, Yodiz, Slack.

Work Experience

- **Instructor: University of Nebraska Omaha, Fall 2017- present**
 - Teaching: Introduction to Applied Statistics (CIST-2500)
 - Teaching: R for data analytics (ISQA 2160)
 - Graduate assistant/teaching style: JAVA programming language
- **Research Assistant in University of Nebraska Omaha, Fall 2017- Spring 2019**
 - Gain experience working with diverse, large, and complex data sets to solve challenging problems using Advance Statistics Methods.
 - Hands-on experience of data preparation, data wrangling, data reduction and model assumption followed by statistical approach in SPSS.
 - Assist in a conducted weekly lab for Java Classes and evaluating the assignment.
 - Involved in End-to-end Machine learning project based on Economy, Finance and Banking domain.

- **Operation Data Analyst at a Private Real Estate Brokers Company, Kermanshah, Iran (Mar 2004 – Sep 2009)**
 - Involved in developing database schema, writing SQL queries, inserting and updating database in Oracle SQL developer.
 - Wrote complex SQL stored procedure to extract data for reporting and analysis purposes in both Oracle SQL and R.

 - Reviewed the documentation work, functional requirements, information resources and systems applications of a firm and improvement.

 - Gain experience in Data analysis, interpretation, implementation and support of statistical modelling and data mining techniques using R programming for segmenting customers (Business /Consumers) and better targeting.
 - Performed ad-hoc statistical analysis and provide data insights that could lead to recommendations in data enhancement and accuracy.

 - Utilizes data visualization tools to make clear and concise visual representations of data using SPSS.

 - Create weekly presentations of data analysis for both technical and non-technical audience.

 - Providing training and walkthroughs for new hires in various department.

 - Articulate complex analytical and data insights to senior executives.

- **Data Analyst at Rahsazan Bisoton Civil Engineers Consulting Company, Iran (Nov 2009 – Feb 2011)**
 - Performs a broad range of operations data analysis assignments entailing finding key indicator using advanced statistical methods such as correlation analysis, conjoint analysis and regression model using R programming.

- Create VBA/Excel based programs to tackle big data, task automation and significantly improve departmental metrics.
- Evaluated new and existing data to determine trends, patterns, usability and overall quality analysis data.
- Efficient in techniques like Missing Value imputation and Exploratory Factor Analysis using excel spreadsheet for further analysis.

Publications

- Hatami, Z., & Wolcott, P. (2020, October). Understanding Students' Identification and Use of Patterns While Writing SQL Queries. In *Proceedings of the 21st Annual Conference on Information Technology Education* (pp. 20-25).
- Hatami, Z., Chetti, P., Ali, H., & Volkman, D. A. (2022, January) novel population analysis approach for analyzing financial markets under crises – 2008 economic crash and covid-19 pandemic. In *Proceedings of the 55th Hawaii International Conference on System Sciences*. <https://scholarspace.manoa.hawaii.edu/handle/10125/79475>
- Hatami, Z., Hall, M., & Thorne, N. (2021). Identifying early opinion leaders on covid-19 on twitter. In *International conference on human- computer interaction* (pp. 280–297).
- Hatami, Z., Ali, H., Volkman, D & Chetti, P. (2022). A New Approach for Analyzing Financial Markets Using Correlation Networks and Population Analysis. In *Proceedings of the 24th International Conference on Enterprise Information Systems*, vol. 1, 2022, pp. 569–577.
- Hatami, Z., Ali, H., Volkman, D. (2022). Evaluating Portfolio Management Performance by Highlighting Network Property and the Sharpe Ratio in the Stock Market. In *Proceedings of the 16th International Conference on Business, Economics and Finance*- in press.
- Hatami, Z., Yi, S., Hall, M. (2022). Well-being and Relative Deprivation in a Post-Technology Era. In *Proceedings of Journal of Heliyon*- In-press

Under Review

- **Journal of empirical finance: Portfolio Selection in Financial Markets using Graph Modeling and Population Analysis**
Authors: Zahra Hatami, Hesham Ali, David Volkman

- **Journal of Applied Economics: A Novel Population Analysis Approach for Analyzing Financial Markets under crisis – A Focus on Excess Returns of the US Stocks Under 9/11 and Covid-19**
Authors: Zahra Hatami, Prasad Chetti, Hesham Ali, David Volkman