

# AMIN SHIRAZI

Ames, Iowa

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## PROFESSIONAL SUMMARY

- Research assistant at the [Consulting Group](#), Department of Statistics, Iowa State University
- Biostatistics graduate intern at [Merck & Co](#), Summer 2020 and Summer 2021
- Biostatistics graduate intern at [ClinChoice](#), Biostatistics and Programming Division, Fall 2020
- 4+ years industry experience in data analysis in research and development department of 3 companies
- Successfully collaborated with sales, marketing, customer service and logistic departments
- Advanced computer skills to write objective-oriented codes, develop packages, and shiny apps in R
- R package development contribution: [gsDesign](#), [gsDesign2](#), [gsdmvn](#), [simtrial](#), [pkglite](#), [r2rtf](#), [PetFindr](#)
- R shiny development: Merck Oncology Shiny (see [this](#) to have an idea of how the oncology shiny I developed looks like), Merck Programming System Tracking Dashboard (using [plotly](#)), Merck Adaptive two-in-one Design shiny, [PetFindr](#) shiny
- Winner of Teaching excellence award (2020) and Consulting excellence award (2021), [ISU](#)
- Treasurer and executive board member of the Statistics in Community organization ([STATCOM](#))

## TECHNICAL AND ADVANCED COMPUTER SKILLS

- Numerical and Data Analysis: R, SAS, JMP
- Reporting: LaTeX, Markdown, Sweave, HTML, Shiny
- Content Management: Github, Bitbucket

## EDUCATION

### Doctor of Philosophy (PhD), Statistics

Department of Statistics,  
Iowa State University, Ames, IA

Aug. 2017–May 2022

### Master of Science (MSc), Mathematical Statistics

Department of Statistics, Faculty of Mathematical Science,  
Shahid Beheshti University, Tehran, Iran

Sep. 2011–Feb. 2014

### Bachelor of Science (BSc), Statistics

Department of Statistics,  
Faculty of Science, IKIU, Qazvin, Iran

Sep. 2006–Sep. 2010

## EXPERIENCE

### Statistical Consultant

Jan. 2021-present

[Consulting group](#), Department of Statistics, Iowa State University, Ames, Iowa

1. Providing advice to researchers about their research designs, choosing statistical methods, interpreting statistical analysis results, use of statistical software to analyze data

### Teaching and Research Assistant

Aug. 2017-present

Department of Statistics, Iowa State University, Ames, Iowa

1. Genomics and microbiome data analysis: Analysis of gene expression data
2. Course instructor of record for [Engineering Statistics](#) with approximately 70 undergraduate students (Fall 2019-Spring 2020)
3. Course co-instructor for Statistical Theory for Research with 30 graduate students (Spring 2019)
4. Teaching assistant for Probability and Statistics for Computer Science, Introduction to Business Statistics and Engineering Statistics with 75 undergraduate students in average (Fall 2017–Fall 2018)

### Stock Market Research Assistant

Mar. 2014–Jan. 2017

Shahid Beheshti University, Tehran, Iran

1. Leader of a research group of 6 students to gather, clean and analyze stock market data
2. Model selection for stock market data using statistical hypothesis testing

## PACKAGE DEVELOPMENT

[pkglite](#): A tool, grammar, and standard to represent and exchange R package source code as text files.

[gsDesign2](#): non-proportional hazards and graphical multiplicity control with group sequential design.

[r2rtf](#): an R package to create production-ready tables and figures in RTF format.

[gsdmvn](#): simulation of fixed or group sequential design under non-proportional hazards.

**simtrial**: this package provides some basic routines for simulating a clinical trial.

**gsDesign**: the gsDesign package supports group sequential clinical trial design

**PetFinder**: an R interface for the [petfinder.com](https://petfinder.com) API (V2).

**OTHER**: Merck Oncology Analysis package, Merck qualification package, Merck Adaptive two-in-one package

## **JOB EXPERIENCE**

### **Biostatistics Graduate Intern, Late Development Statistic Group**

**May 2021– Aug. 2021**

**Merck & Co**, PA, USA

1. Developer of **Merck & Co** internal packages: Oncology Survival Analysis package (mksurv), Qualification package (mkqualify), and Merck Adaptive two-in-one Design package.
2. Creator and developer of three shiny apps for Merck internal resources: Oncology survival analysis shiny (see [this](#) to have an idea of how the oncology shiny I developed looks like), Statistical programming managerial dashboard for project monitoring using [ggplotly](#), and a shiny app for adaptive two-in-one studies (for oncology trials).

### **Biostatistics Graduate Intern, Biostatistics and Programming Division**

**Sep. 2020–May 2021**

**ClinChoice**, PA, USA

1. Developing unit tests for Group Sequential Design packages
2. Simulation studies for oncology clinical trials

### **Biostatistics Graduate Intern, Design Methodology Division**

**June 2020–Sep. 2020**

**Merck & Co**, PA, USA

1. Collaboration in package development at **Merck & Co**. in 3 packages: **simtrial**, **gsDesign2** and **gsdmvn**
2. Simulation studies for fixed and group sequential designs under non-proportional hazard assumption
3. Research in design methodology for group sequential designs for time-to-event endpoint trials

### **Data Analyst, R&D department**

**July 2015–July 2017**

**Koosha Setareh Iranian International Co**, Tehran, Iran

1. Benefited statistical skills to interpret market data in corporation with sales and marketing department
2. Modelling generalized linear model to data from market research
3. Generated creative business reports, tables, charts, and graphs for the logistic department

### **Data Analyst, R&D department**

**Sep. 2014–June 2015**

**Iranian Shaygan Pars**, Tehran, Iran

1. Interpreted sales data applying statistical models as a teamwork with sales department
4. Generated creative business reports, tables, charts, and graphs for the logistic department

### **Statistical Consultant and Data Analyst**

**May 2014–Sep. 2014**

**Info Tech International Company**, Tehran, Iran

1. Conducted tests for survey data validation using statistical knowledge and analytical methods
2. Call center consultant for designing, collecting and analysis of customer satisfaction survey

## **HONORS AND AWARDS**

1. Consulting excellence award (Spring 2021), Iowa State University
2. Teaching excellence award (Spring 2020), Iowa State University

## **SERVICE AND LEADERSHIP SKILLS**

### **Statistics in the Community, Treasurer and Executive Committee member**

**Aug. 2019–present**

**STATCOM** at Iowa State offers statistical advice and expertise free of charge to governmental and nonprofit groups in the local community

### **Statistics faculty committee - student representative**

**Aug. 2019–present**

Department of Statistics, Iowa State University, Ames, Iowa

- Communicate relevant information from the student association to the faculty members

### **Iranian Students and Scholars' Association, Treasurer, ISU**

**Aug. 2018–Aug. 2019**

- Event planner for 5 big events for the members of the association and non-Iranian people
- Organized the new year celebration event and hosted approximately 300 people
- Communicated with finance committee and senate of Iowa State University for funds to hold events

## **PROFESSIONAL AFFILIATIONS**

- American Statistical Association (ASA), Institute of Mathematical Statistics (IMS)
- Iranian Statistical Society (ISS)