Ebi Barzegary

MARKETING DATA SCIENTIST · SOLUTION ENGINEER

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Summary

Results-driven **Data Scientist** with a strong background in **marketing data science**, **programming, and computer science**. Experienced in **causal inference, media measurement, personalized promotion policy design, and choice modeling**. Skilled in **marketing data science, algorithm design, data structure, full-stack programming**, and **developing software solutions** and **automations**. Proven track record of designing **optimization algorithms** for complex marketing problems. Adept at interdisciplinary collaboration, high-level abstract thinking, and translating business needs into actionable insights for data scientists and software engineers. Passionate about continuous learning and professional growth, with a focus on driving success in **AdTech** and **MarTech** industries.

Work Experience

T-Mobile
Bellevue, WA

BUSINESS ANALYSIS MANAGER
Mar. 2022 - Present

- Estimated advertisement ROI using multi-touch attribution models and marketing mix modeling.
- Measured reach and conversion metrics using Google Campaign Manager and iSpot data, with the aim of optimizing advertising budgets across various publisher channels.
- Utilized Python to retrieve data from SQL databases, access APIs such as Google Analytics and Tableau, and automate email reporting.

Adobe
San Jose, CA

DATA SCIENCE RESEARCH INTERN
Sep. 2013 - Jul. 2016

- Collaborated on research projects focused on customer acquisition and retention in SaaS business models, addressing open-ended questions.
- Devise causal algorithms for estimation of personalized effects in high-dimensional data settings.
- Managed all stages of a data science research project independently, including project definition, data collection, data analysis, modeling, and reporting of results.
- Worked with high-dimensional user-level usage data.

EPie
Tehran, Iran

CO-FOUNDER AND FULL-STACK SOFTWARE DEVELOPER
Sep. 2013 - Jul. 2016

- Designed and implemented an extensive code-generator for HTML, ASP.NET, and JavaScript using Visual Studio scaffolding.
- Led a 5-member engineering team to design fully-tailored solutions using agile methodology.
- Fulfilled multiple roles, such as project manager, solution architect, and full-stack web developer.

Education

Ph.D. in Quantitative Marketing
Seattle, WA

FOSTER SCHOOL OF BUSINESS, UNIVERSITY OF WASHINGTON
Sep 2016 - Dec 2021

- Minors in Computer Science and Economics.
- Dissertation: Essays on Algorithms for Customer Acquisition and Retention in SaaS Business Models.

Master of Business Administration (MBA)
Tehran, Iran

SHARIF UNIVERSITY OF TECHNOLOGY
Sep 2014 - Jun 2016

- Ranked 23rd in Iran's national MBA program university entrance exam.

B.S. in Information Technology Engineering
Tehran, Iran

SHARIF UNIVERSITY OF TECHNOLOGY
Feb 2009 - Sep 2013

- Gained honorary admission to the program due to a silver medal in the Iran National Olympiad in Informatics.

Skills

Marketing Science	Advertising: Multi-touch attribution modeling, Market mix modeling, Game theory Promotion: Treatment effect estimation, Personalized policy design Pricing: Discrete choice modeling, Dynamic choice modeling, Demand estimation Other: Causal inference, Synthetic control, Structural modeling
Data Science	Machine learning, Adaptive learning, A/B testing, Personalization
Computer Engineering	Full-stack web development, System design, Automation design, Agile methodology, MVC
Computer Science	Algorithm design, Data structure, Graph theory, Discrete mathematics, Computational complexity
Programming and Data Tools	Python, Java, R, ASP.NET, JavaScript, HTML, SQL, Tableau, Alteryx, Spark, Git, RESTful APIs
Other Skills	Teamwork, Abstract thinking, Problem-solving, Storytelling, Project management, Communication

Honors & Awards

2020-2021 **James B. Wiley Endowed Ph.D. Fellowship**, University of Washington *Seattle, WA*

2016-2020 **G. Furukawa Distinguished Leader Fellowship**, University of Washington *Seattle, WA*

2009-2013 **Grant for undergraduate studies**, Iran's national foundation of elites *Iran*

2008 **Introduced as Scientific Elite**, Iran's national foundation of elites *Iran*

2007 **Silver Medal**, INOI - National Competition in Algorithm Design, Data Structures, and Programming *Iran*

Notable Projects

RePaD Algorithm (Marketing Data Science)

- Introduced a novel algorithm extending the generalized random forest algorithm for dynamic choice estimation in high-dimensional settings.
- Enabled the extraction of more information from high-dimensional customer data, such as app usage, in dynamic choice settings.
- RePaD features linear time-complexity with respect to data dimensionality and is robust to scale and irrelevant variables.
- Reduced estimation bias by up to 40% compared to traditional approaches in simulation studies.
- Source code available on GitHub, including several tools for dynamic discrete choice modeling in Python.

Personalized Promotion Policy Design (Marketing Data Science)

- Developed a framework to estimate the effect of marketing interventions at an individual level, identify the optimal promotion for each customer, and segment customers based on their response to a promotion.
- Extracted valuable insights from A/B testing by conducting post-hoc analysis of estimated treatment effects.
- Assessed and compared the performance of various promotion allocation policies using data from a single A/B test.
- Achieved a 6.8% increase in post-trial subscription rates based on offline evaluation metrics in a free trial length assignment task. The personalized policy outperformed all other one-size-fits-all policies.
- Research paper published in the prestigious Management Science journal.

Project Management Information System (Software Solution Design)

- Developed a web-based project management information system (PMIS) solution, featuring plan and project management, Gantt chart design, and project cost and time estimation.
- The solution incorporated a knowledge tree using information from previous successful projects for cost and time estimation.
- Featured a single-page MVVM front-end architecture using KendoUI, and a RESTful backend with ASP.NET MVC.

Fully Integrated Payroll and HSE Solution (Software Solution Design)

- Designed and developed a fully-tailored web application solution with over 30 subsystems for data entry and reporting across various teams in an HR organization.
- Integrated with company software solutions, including paycheck generator software, accounting software, health management system, and insurance management system.
- Utilized ASP.NET MVC architecture for web application design.
- Implemented in SAIPA Corporation, a leading car manufacturer in the Middle East.

Other services and responsibilities

Ad-hoc Reviewer

- Marketing Science Journal
- Quantitative Marketing and Economics Journal

Foster Customer Analytics Center Lab Administrator

- Designed the Foster Customer Analytics Center website
- Maintained the high-performance computing lab

Teaching Special Topics in Algorithm Design and Discrete Mathematics

- Prepared high-school students for the Iranian National Olympiad in mathematics
- Taught in various schools across multiple states in Iran, including Alborz, Tehran, Zanjan, and Hormozgan