

# Emre Yucel

Austin, TX

☎ (832) 408-1686 | ✉ emre.m.yucel@gmail.com

## Summary

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Data scientist with 5+ years of experience working with data to create models and test hypotheses. Proficient at conducting independent research as well as working with others on multi-disciplinary teams. Enjoy learning new tools and techniques. Looking for challenging opportunities to expand my knowledge and apply my excellent quantitative and analytical skills to new and complex problems.

## Experience

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### Expedia Group

Austin, TX

#### SENIOR MACHINE LEARNING SCIENTIST

Apr. 2022 - Present

- Modeled segment-level demand elasticities using hierarchical models, increasing granularity over multiple model versions.
- Developed convex optimization problem for estimation of financial impact to business and determination of optimal prices.
- Deployed a dynamic model which continuously re-optimizes pricing, resulting in 3% uplift of Vrbo revenue.
- Managed stakeholder relationships, incorporating strategic business decisions into models.
- Designed and performed experiments where randomized testing could not be used.
- Onboarded and mentored new team members, getting them up to speed and contributing to model repositories in short order.

### McCombs School of Business, University of Texas at Austin

Austin, TX

#### LECTURER

2021 - Present

- Lecturer for STA 235 Data Science for Business Applications, covering topics on regression modeling, causal inference, and predictive modeling. Continuously improved curriculum over multiple semesters incorporating student feedback to best achieve learning outcomes.
- Co-instructed STA 301 Introduction to Data Science for a section of 700 students. Remotely delivered engaging lectures and R walk-throughs in a format constrained by lack of interactivity.

### Expedia Group

Austin, TX

#### MACHINE LEARNING SCIENTIST III

Sep. 2019 - Mar. 2022

- Optimized service fee curve for a 25% increase in revenue with minimal conversion loss.
- Identified unintended marketplace behavior in ranking and sort algorithm through causal analysis techniques.
- Constructed new and improved training dataset for booking probability model, increasing accuracy by 2%.

### Vrbo

Austin, TX

#### DATA INSIGHTS ANALYST

Sep. 2017 - Sep. 2019

- Created an extensible framework for analyzing impact of product features on gross booking value using difference in differences and bootstrapping techniques.
- Worked cross-functionally across multiple teams and products to provide data-driven insights on cancellation policies and to drive a move to an improved framework for reporting cancellation rate.
- Utilized marketplace data and analysis tools to identify, investigate, and report on anomalies in key metrics of the business by creating Tableau dashboards for stakeholders.
- Developed methodology for determining customer quality segments through implementation of conditional inference trees for variable selection and threshold determination.
- Built tools to help product owners quickly analyze their customer feedback through topic models using unsupervised learning.

## Education

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### Ph.D. in Information, Risk, and Operations Management

Austin, TX

#### UNIVERSITY OF TEXAS AT AUSTIN

Dec. 2018

- Thesis: Capacity Auctions in Electricity Markets

### B.A. in Computational and Applied Mathematics

Houston, TX

#### RICE UNIVERSITY

May 2008

- Double Major in Mathematical Economic Analysis

# Languages & Skills

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**Programming**  
**Software**  
**Languages**

Spark, Scala, Python, SQL, R, Java, Fortran, Matlab  
Databricks, AWS, Tableau, Excel, Mathematica, Powerpoint  
Intermediate fluency in Spanish, intermediate fluency in Turkish