# Elena Khusainova

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### Education

Yale University 2014-2020

PhD in Statistics and Data Science

Advisors: David Pollard, Yihong Wu

Research interests: random matrices, random matrix eigenvalues properties, perturbation theory,

respondent driven sampling, Markov chains, interpretable machine learning

#### Lomonosov Moscow State University (Russia)

2007-2012

Specialist (equivalent of MSc) in Mathematics, GPA 3.9, diploma with honors

Advisor: Andrey Zubkov

Thesis: Urn schemes and their applications: drawing from an urn with big variety of colors

# Internship and work experience

# Department of Statistics and Data Science, Yale University

2020-present

Lecturer

taught Statistical Case Studies (S&DS 425), Intro to Stat: Data Analysis (S&DS 106),
Data Analysis (S&DS 661) and YData: An Introduction to Data Science (S&DS 123)

## AT&T Labs Research summer, 2018

Technical PhD Intern

- worked with big data: DIRECTV viewership
- introduced new visualization approach to reveal user behavioral patterns
- designed variables from raw data to capture viewer behavior
- classified and modeled behavior of TV viewers

#### Center for Science and Social Science Information, Yale University

2017-2019

Statistical Consultant

- supported researchers throughout the university in need of statistical analysis
- created and led monthly workshops for 30+ participants with various backgrounds

#### Moscow State 57th school (Russia)

2012-2014

High School Mathematics Teacher

- curriculum included: Linear Algebra, Calculus, Graph Theory, Mathematical Analysis

## Collaboration experience

#### AT&T Labs Research 2018-present

Research project: Rule-based Classification for Positive, Negative and Ambiguous Cases

- developed a new algorithm addressing limitations of an older one
- independently built R package with implementation of both algorithms
- presented the work at Joint Statistical Meetings 2020

## Environmental Performance Index, Yale University

summer, 2015 and 2017

Data Programmer and Research Assistant

- scraped, analyzed and visualized data
- built an R Shiny visualization and data exploration tool for non-technical users

#### Linguistics Department, Yale University

2015-2016

Research project with professor Claire Bowern: Random Forest for Language Classification

# Programming skills

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Data analysis, visualization (ggplot, Shiny), web scraping, C/C++ interface, RCloud, working with big data

#### Python

Data analysis, visualization, web scraping

C/C++

Beginner

## Interests

Indoor rock climbing, baking, learning German