

# KARTHIKEYAN RAJENDRAN

Passionate about statistical learning and software engineering

@ karthikeyan.rajendran@gmail.com

+1 609-613-2710

in <https://www.linkedin.com/in/karthikeyan-rajendran-56319639/>

## EXPERIENCE

### Machine Learning Engineer

#### Amazon

Oct 2022 – Present

New York, NY

- Built machine learning-based models to optimize rendering decisions (UX) on different parts of the retail site.
- One of two main organizers of a 2-hour tutorial session on the above topic at the internal ML conference, AMLC 2023.

### Machine Learning Engineer

#### Meta

Sep 2021 – Sep 2022

San Francisco, CA

- Consulted on various ranking-related efforts involving Facebook Communities, auditing existing models and developing new ones in the process.

### Software Engineer

#### Amazon

Jun 2020 – Aug 2021

New York, NY

- Researched and built recommendation models and developed a service to improve the discoverability of digital educational resources within the retail site.

### Quantitative Researcher/Engineer

#### Bloomberg

Sep 2013 – June 2020

New York, NY

- Researched and implemented statistical bond pricing models using empirical market data.
- Developed and maintained parts of a distributed system to price municipal fixed-income securities.
- Built and pioneered the use of interactive visualization tools for modeling and presentation in a cross-functional team. Also served as a bridge between quants, developers, and product owners.

### Assistant in Research/Instruction

#### Princeton University

Jan 2009 – June 2013

Princeton, NJ

- Computationally implemented reduced descriptions of dynamical network models, thereby accelerating numerical simulations and performing useful system-level analysis
- First author of a book chapter
- Co-authored 8 papers in professional journals
- Google Scholar publication list: <https://goo.gl/soRHCf>

## LANGUAGES

C++

Python

R

R Shiny

JavaScript

Java

Flutter/Dart

SQL

## EDUCATION

### PhD, dynamical systems | GPA 4/4

#### Princeton University

June 2013

Princeton, NJ

- In the chemical engineering department with thesis in the area of applied mathematics
- More details in the work experience section

### B.Tech & M.Tech | GPA 9.64/10

#### IIT Madras

July 2008

Chennai, TN, India

- Major: Chemical Engineering
- Minor: Industrial Engineering
- Class Rank: 1 out of 50

## ACHIEVEMENTS



#### 2016 - Glover Klingman Prize

Second author of the best paper in the journal Networks



#### 2012 - Ray Grimm Memorial Prize

Awarded for significant achievement in computational physics



#### 2008 - Gordon-Wu fellowship

Awarded to pursue graduate research at Princeton University



#### 2003 - State Rank 3

Among more than 100,000 students in state engineering entrance exam

## ACTIVITIES

### Volunteer and Team Lead, New York Cares

2013 – Present

New York, NY

- Led projects ranging from education to food security.

### Hobbyist app development

- Recreated the NY Times Spelling Bee game: <https://ply.gl/com.kraj.spelling.bee>

## SKILLS

statistical/predictive modeling

optimization

multivariate analysis

numerical methods

neural networks

large-scale distributed systems

linux

cloud computing

practical problem solving