Varoon Pazhyanur

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EDUCATION

Emory University, Atlanta, GA   Fall 2015 – Present
- M.S./B.S. Mathematics
- B.A. Economics

Overall GPA: 3.7/4.0

WORK EXPERIENCE

Emory University   Fall 2017 – Spring 2018
Teaching Assistant   Atlanta, GA
- Led weekly problem sessions for Honors Linear Algebra and Honors Vector Calculus.
- Helped students with homework problems and course content.

UnitedHealth Group   Summer 2016, 2017
Technology Development Intern   Eden Prarie, MN
- Identified $2M in annual cost savings by analyzing computational infrastructure utilization.
- Designed a dashboard analyzing the performance of a 5 petabyte data lake.
- Won a case competition by using Bayesian inference on a partial database of deidentified patient data to reduce over-prescription of antibiotics.

Mathnasium Learning Center   Summer 2014, 2015, 2016, 2017
Math Instructor   Eagan, MN
- Developed teaching skills and a deeper knowledge of math.
- Specialized in SAT/ACT preparation and homework help for high school students.
- Taught more than 100 students between the ages of 6 and 18.

RESEARCH EXPERIENCE

UC Berkeley   Summer 2018
Geometry and Topology Research Experience for Undergraduates   Berkeley, CA
- Wrote a manuscript on the realizability and inscribability of polytopes. Proved results highlighting complexity in the combinatorial structure of $2n$-polytopes.

MIT   Summer 2018
Mathematical Physics and Geometric Analysis Intensive   Boston, MA
- Studied the formation of singularities in general relativity and the stability of ceratin solutions to the Einstein Vacuum Equations.

Emory University   Fall 2016 – Spring 2017
Research Assistant   Atlanta, GA
- Collaborated wtih Professor Caroline Fohlin in detecting stock watering in the early 20th century.
- Created datasets of stakeholders in American banks from 1900–1930 and of the financial performance of major American companies by using Moody's manuals and VBA.

SKILLS

Programming: Python, Java, Stata, R, Matlab, SQL, HiveQL, Splunk, VBA. Experienced in machine learning, computer vision, and signal processing.

ACCOLADES

The Chair's Award for Achievement   April 2018
- Awarded by the Emory University Department of Mathematics for "exceptional performance in the field of mathematics."

Prize Winner at VandyHacks 2016   November 2016
- Created Sensor Spot, an application that allows a user to find available parking spots, study areas, etc.
- Awarded for the best use of Initial State's API for creating a useful dashboard to visualize real time signals from distance and infrared sensors.

Prize Winner at HackGT 2016   September 2016
- Created Pathos, an application that uses virtual reality to enhance data visualization.
- Awarded for the best use of Blackrock's Aladdin API for using VR to visualize the effects of various market shocks on portfolio returns.