Varoon Pazhyanur

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EDUCATION

Emory University, Atlanta, GA — Fall 2015 – Present
- M.S./B.S. Mathematics; Major GPA: 3.7
  Thesis: On the Realizability and Inscribability of 4-Polytopes
- B.A. Economics; Major GPA: 3.8
Overall GPA: 3.7/4.0

WORK EXPERIENCE

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

UnitedHealth Group — Eden Prarie, MN
Technology Development Intern — Summer 2016, 2017
- 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 — Eagan, MN
Math Instructor — Summer 2014, 2015, 2016, 2017
- 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 — Berkeley, CA
Geometry and Topology Research Experience for Undergraduates — Summer 2018
- Wrote a manuscript on the realizability and inscribability of polytopes. Proved results highlighting complexity in the combinatorial structure of $2n$-polytopes.

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

Emory University — Atlanta, GA
Research Assistant — Fall 2016 – Spring 2017
- Created datasets of stakeholders in American banks from 1900–1930 and of the historical performance of American companies by using Moody's manuals. Worked with Economics Professor Caroline Fohlin.

SKILLS

Programming: Python, Java, Stata, R, Matlab, SQL, HiveQL, Splunk, VBA, LaTeX. 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 finds 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 enhances data visualization with virtual reality.
- Awarded for the best use of Blackrock's Aladdin API for using VR to visualize the effects of various market shocks on portfolio returns.