

Naren Manoj

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Education

The University of Texas at Austin

May 2018

- BS Computer Science, *Turing Scholars Honors*: 3.8/4.0
 - Graduate Coursework: Machine Learning
 - Undergraduate Coursework (honors italicized): *Data Structures and Algorithms*, *Discrete Mathematics*, *Computer Organization and Architecture*, *Programming Languages*, *Algorithms and Complexity*, Operating Systems, *Vector Calculus*, Probability, Linear Algebra for Computer Science
- Technologies: Most comfortable using C++, Java, Python; Comfortable using JavaScript; Exposure to Ruby

Experience

Google Inc (Software Engineering Intern)

May-Aug 2017

- Anticipated project: Auto-tuning cache replacement policy via machine-learning over data access patterns

Bloomberg LP (Software Engineering Intern)

Jun-Aug 2016

- Designed and engineered an application to aid in rule-based problem diagnosis on critical systems (C++, JavaScript, Python, Ruby)
- Application shortens the workflow previously required to identify root causes of issues across these systems

Research

Computer Architecture

2015-

- Working under Drs. Calvin Lin and Akanksha Jain to improve memory subsystem optimization, especially in caching
 - Studying the relationship between state of the art cache replacement policies and cache compression techniques

Projects

Web Crawler and Search Engine (Java)

Dec 2015

- Wrote a web crawler and search engine that can index a website on a local disk and perform queries

Zero Robotics High School Tournament (C++)

2014-15

- Led an international alliance consisting of teams from United States and Italy
- Designed and implemented a strategy for Synchronized Position Hold Engage Reorient Experimental Satellites (SPHERES) to take pictures of points of interest on an imaginary rotating asteroid
- Won the international championship held aboard the International Space Station

Juggling Robot Simulation (C++)

2013-14

- Developed a juggling robot simulation under the guidance of a senior scientist from TRACLabs (Houston, TX)
- Used this simulation to validate his PhD thesis on control theory regarding intersections of domains of attraction for control laws

Activities and Interests

Competitive Math

2011-

- Participated in the AMC and AIME in high school
- Solved numerous problems from other Olympiads such as Asian Pacific Math Olympiad (APMO), Balkan Math Olympiad, USA Math Olympiad (USAMO), and International Math Olympiad (IMO), among others

Competitive programming

2015-

- Actively participating in Codeforces and USACO rounds
- Problem setter for UT Competitive Programming contests

UT CS Pod Mentor

Fall 2016

- Leading a weekly freshman seminar covering various topics relevant to student life at UTCS

Awards

USA Computing Olympiad, Platinum Division

Feb. 2017

Bloomberg CodeCon Programming Competition World Finalist

Jan. 2017

Recipient of the Angus G. and Erna Pearson Endowed Scholarship

Aug. 2016

Invited to and attended the 2015 White House Science Fair

Mar. 2015

Placed in the top 15% on the American Invitational Mathematics Exam (AIME) I

Mar. 2015

International champion team, Zero Robotics High School Tournament

Dec. 2014