Ahad Rizvi

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EDUCATION

CORNELL UNIVERSITY
BA in Computer Science
Expected May 2021 | Ithaca, NY
Cum. GPA: 3.75/4.0

TJHSST
Senior Lab: Microelectronics
Graduated June 2017 | Alexandria, VA
Cum. GPA: 4.3/4.0

LINKS

Github (Personal):// **t40tds**
Github (Cornell): // **ar727**
LinkedIn:// **ahadrizvi/**

COURSEWORK

Computer System Organization and Programming
Honors Waves and Statistical Mechanics
Honors Object Oriented and Data Structures
Discrete Structures
Differential Equations
Honors Electricity and Magnetism
Microeconomics
AP Computer Science A + Data Structures
AP Physics C: Mechanics & E&M
Multivariable Calculus
Linear Algebra
Advanced Digital Electronics
Advanced Analog Electronics

SKILLS

PROGRAMMING
Java • Python • JavaScript • HTML • CSS • ArduinoC • LaTeX • C • MIPS Assembly

ELECTRONICS
Oscilloscope Operation • LS TTL Logic IC's • Bread-boarding • FGPA • Arduino •Signal Analysis

TEST SCORES

ACT
Math:	34
English	34
Reading	34
Science	34
Writing	36

SAT SUBJECT
Math II:	800
Physics	790

RESEARCH

CORNELL DATA SCIENCE
Ongoing
- Working on the data engineering subteam to learn general data science libraries and techniques (Spark, Hadoop, bash scripting)
- Working with a team to parallelize a reinforcement-learning based join-order optimization algorithm for database management

TJ MICROELOCTRONICS LAB
Sept 2016-May 2017

- Explored the applications of accelerometers as motion tracking devices
- Integrated accelerometers and visual tracking technology (OpenCV) to perform sensor fusion
- Developed software, in ArduinoC and python, utilizing the Pygame and NumPy libraries to
    - clean, filter, and fuse proximity and inertial data
    - calibrate and maintain a map in 3d space

PROJECTS AND EXPERIENCE

CRYPTOSCRATCH (link here)
2018
- Developed a simple note-taking web application that uses the scjl library to store notes encrypted locally

TJ ELECTRONICS CLUB | Officer and Project manager
2015-2017
- Introduced students to analog, digital, and general hobbyist electronics
- Gave lectures on microelectronics topics
- Developed and lead projects to teach skills such as
    - TTL logic
    - LED matrix usage
    - Efficient and elegant bread boarding
    - Signal analysis
- Increased club membership and solidified club procedures
- Developed a comprehensive guide to analog and digital electronics theory and development for use in the club

VOLUNTEER EXPERIENCE

TOM PERIELLO FOR VIRGINIA | Canvasser and Phone Banker
May 2017

- Canvassed and phone banked for Tom Periello's campaign in the 2017 Virginia Democratic gubernatorial primary

AWARDS

2016	National	USA Computing Olympiad Silver Division
2017	National	Scholastic Writing Exam - Silver Key
2017	National	National AP Scholar
2014-16	top 14%ile	National Latin Exam Gold
2014-16	top 14%ile	NJCL Etymology Exam Gold