Resume of SANIYAH SHAIKH

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OBJECTIVE

To gain challenging opportunities related to Computer Science and Robotics.

EDUCATION

Sophomore – University of Pennsylvania, Philadelphia, PA   Expected Graduation: May 2020

- Computer Science Major, School of Engineering and Applied Sciences
- CIS courses:
    - Completed:
        - CIS 120: Programming Languages and Techniques I
        - CIS 160: Mathematical Foundations of Computer Science
        - CIS 121: Programming Languages and Techniques II
        - CIS 262: Automata, Computability, and Complexity
    - Current:
        - CIS 240: Introduction to Computer Architecture
        - CIS 320: Introduction to Algorithms
        - CIS 552: Advanced Programming (Haskell, Grad level course)
- Other courses of interest:
    - MEAM 101: Introduction to Mechanical Design
    - LING 106: Introduction to Formal Linguistics
    - BEPP 201: Introduction to Business Economics

Rochester Adams High School, Rochester Hills, MI.   Graduated: June 2016

- **GPA: 4.321 (weighted)**
- Standardized Tests:
    - ACT March 2015   – Composite score of **35**   out of 36.
    - SAT December 2014   – Composite score of 2280 out of 2400

- Notable Courses:
    - AP Physics, AP Computer Science, AP Calculus, AP Microeconomics, AP Psychology, AP English Language & Composition, AP English Literature, AP US History, AP Spanish, Accounting, and International Business.
    - **Dual enrolled** at Oakland University for Multivariable Calculus in Fall 2015.

COLLEGE EXTRA-CURRICULAR ACTIVITIES

Member of Penn Women In Computer Science (WiCS)
- 2016 Board member for WiCS residential program – helped organize monthly tech and social activities
- Volunteered to teach coding workshops for high school Girl Scouts
- Organized a workshop for admitted students to meet WiCS ladies

Tech Committee Member for Ivy League Undergraduate Research Symposium (ILURS):
- Help develop website (www.ilurs.org) using HTML, CSS, and JavaScript
- Keep website updated with original content
- Manage Search Engine Optimization (SEO) for high Google search result rankings
- Create an image for ILURS and keep consistent across social media platforms and website content

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Other:
- Member of Advancing Women in Engineering at Penn and the Society of Women Engineers
- National Center for Women and Information Technology Aspirations in Computing member
- Participated in PennApps XV, a hackathon hosted by Penn Engineering
- Hacked at FemmeHacks, a hackathon hosted by Penn WiCS
- Volunteered as a referee for Penn FLL Championships all day on Feb 4th, 2017
- Learning to ballroom dance through Penn Latin and Ballroom Dance Club

WORK EXPERIENCE

Research Assistant   Summer 2016 & 2017
Wright Patterson Air Force Base

- I was one of 35 students nationwide accepted into the prestigious Wright Scholar Research Assistant Program for the Air Force Research Laboratory in Dayton, OH in 2016
- Over summer 2016, I worked on computer science research in the Automated Target Recognition Center with my mentor, Dr. Clark Taylor, by integrating 3D models from drone imaging into Google Earth and converting them to a military format (see briefing on my website for details)
- I have returned for summer 2017, but this research is not yet publicly released

CIS 120 Teaching Assistant   Fall & Spring 2017
University of Pennsylvania School of Engineering

- Teaching Assistant for CIS 120: Programming Languages and Techniques I at Penn Engineering.
- This course covers OCaml, Java, basic graphical user interfaces, data structures, and good code design and style
- I co-teach a recitation section, grade homework, and answer student questions during office hours, on Piazza, and as a part of the FAQs committee.

Engineering Research Assistant   October 2016 - present
Children's Hospital of Philadelphia – Center for Injury Research and Prevention

- I am working on a work-study research project with Dr. Helen Loeb about issues concerning safety during a transition from autonomous control of a vehicle to manual control.
- I programmed a self-driving scenario into our self-driving car simulator using JavaScript, and assisted with testing and trials.
- We now have a couple academic papers in progress about the results from this study
- See http://blog.research.chop.edu/ready-self-driving-cars/ for the highlights of our work

Summer Internship   July & August 2015
DELRAY Systems

- DELRAY Systems is a startup company hosted at Oakland University's business incubator that provides solutions in the areas of 3D printing, additive manufacturing, and 3D modeling.
- My role included website design, search engine optimization (so our website showed up on the first page on google searches), social media and email campaigns, and business analytics.
- **I was awarded an "Inventors Package"**, which included a 3D printer and 3D modeling software – which I now use to design and print 3D prototypes at home.

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AWARDS AND HONORS

- 2016 National Merit Scholar and AP Scholar with Distinction awarded August 2015
- Rochester Community Schools Scholar of Highest Distinction
- Michigan Affiliate National Center of Women and Information Technology (NCWIT) Aspirations in Computing Awardee

HIGH SCHOOL EXTRA-CURRICULAR ACTIVITIES

Member of Business Professionals of America (BPA):
- **Vice President** of the Adams BPA Chapter (2015-2016)
    - Organized the 2016 Regional Leadership Conference at Baker College
    - Organized a coat drive to benefit One Warm Coat as part of the state service project
- Competed in the State Leadership Conference for four years (voting delegate at 2016 SLC)
- Competed in Visual Basic Programming for three years at the regional and state level.
    - 2015: 1st regionally, 6th in state
    - 2016: 1st regionally, 7th in state
- Earned the **Ambassadors Torch Award** for community service in 2015

Member of the National Honor Society (NHS) and Spanish National Honors Society (Sociedad Honoraria Hispanica):
- Participated in service activities in the areas of leadership, community service, school service, and fundraising.
- Received silver medals for the National Spanish Exam in Level 3 (2014), and Level 4 (2015)

Member of the Adams High School Robotics Team (AdamBots FIRST Robotics):
- Attended the World Championship in St. Louis in April 2015 & 2016 to represent my school
- As **the Marketing, Outreach, and Partner Relations Subteam Captain for 2016 FIRST Season**, I led the organization and presentation of our third annual Meet the AdamBots and Cyber Cats Event, which gives sponsors, parents, and prospective members an opportunity to see the AdamBots building our robot and hear more about how our team works.
- Marketing sub-team – Newsletter Editor, sponsor contact, and presenter in the annual Meet the AdamBots event for sponsors and parents.
- Social Media – Web Design sub-team – create and update the AdamBots webpage, helped create submission for the annual Media and Technology Innovation Award
- Programming sub-team – worked on programming autonomous portion of robot motion

Others:
- I like traveling, and have visited many different places within the US, and have also traveled to 7 other countries on 3 different continents.
- I have a purple belt in Karate, and like reading, swimming, and biking in my spare time.