

RISHABH JAIN

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EDUCATION

Carnegie Mellon University
Mechanical Engineering

Aug. 2018 - Current

George C. Marshall High School
International Baccalaureate Diploma

Sept. 2015 - June 2018

EXPERIENCE

Vitreous State Laboratory at The Catholic University of America, *Research Laboratory Intern*

June 2017 - Aug. 2017

Experimental and theoretical research at The Vitreous State Laboratory (VSL) covers various areas of materials science from cutting edge nanoscale research with the state-of-the-art facilities to large-scale production techniques.

- Assisted in the preparation and characterization of various samples using the Scanning Electron Microscope (SEM).
- Researched into the applications of volcanic natural glass for nuclear waste vitrification.
- Developed a reusable water quality sensor platform capable of detecting heavy metal ions.

FIRST Robotics Team 5549, *Outreach Coordinator and Programmer*

Oct. 2014 - March 2017

Marshall HS's robotics team; participated and was awarded the Rookie All-Star award in the 2015 season.

- Served as Outreach Coordinator and deployed a fast and responsive website for my High School's robotics team with no budget.
- Integrated various technologies into the website for a better user experience.
- Responsible for securing grants from various sponsors.
- Helped program the robot using C++. For the 2016 season, also assisted the team in creating a computer vision system using a NVIDIA Jetson TK1 and OpenCV.

CyberPatriot Team n0passwd, *Team Captain and Linux Expert*

Sept. 2014 - May 2018

A cybersecurity competition in which teams are tasked with securing the network and computers of a small company.

- Led my rookie team to achieve Platinum (Top 30%) Status all four years we have competed.
- Responsible for teaching basic Linux system hardening to beginners.
- Created scripts using Bash to automate some processes that are required in the competitions to allow more time for the harder vulnerabilities.
- System hardening included disabling insecure services, removing unsafe applications and securing user accounts.
- Solved forensics challenges which required a unique understanding of the Linux command line interface.

SySTEMic Solutions VEX IQ Summer Camp, *Lead Programming Instructor*

Aug. 2016

One week camp for elementary school students for building and programming a robot.

- Created interactive lessons on the basics of robot programming.
- Taught the students basic programming skills in RobotC.
- Maintained a classroom environment with 30 elementary school students.

VOLUNTEERING

North South Foundation, *Math Instructor*

Sept. 2016 - April 2017

Responsible for teaching competition math concepts and strategies to a group of elementary school students

Kiwix by Wikimedia CH, *Web Developer*

Oct. 2016 - March 2017

Responsible for setting up and maintaining a web store for Kiwix. The revenues generated from the sales will help further Kiwix's mission of making knowledge more accessible for everyone.

ACHIEVEMENTS

Finalist, *Intel International Science and Engineering Fair*

May 2017

Distinguished Honor in Technology, *Optimist Club of Greater Vienna's T. R. Cook Youth Awards of Excellence*

April 2017

Grand Prize, *Fairfax County Science and Engineering Fair*

March 2017

Grand Prize, *Marshall High School Science Fair*

Jan. 2017