Nathan Chong

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EDUCATION

Battlefield High School (2015-Present, Early College Scholar)
Governor's School @ Innovation Park (2017-Present)
George Mason University (Dual Enrolled Guest Matriculate, 2017-Present)
University Of Maryland (Summer, 2016)

- ENES 100 Introduction to Engineering and Design (3 Credits)

SAT: 1540 (740 RW) (800 M)
ACT: 34
SAT Subject Tests:
-800 Math II
-790 Physics

AWARDS & ACHIEVEMENTS

- *Science and Engineering Apprenticeship Program*
  *1st Place for Outstanding Presentation of Project. I presented my summer research to a panel of judges that consisted of NRL scientists and engineers. (2018, Naval Research Laboratory)
- *Robotics-*
  **FRC Team 1885(2017-2018, Chesapeake District)*
  -District Triple Crown Winner (2018)
  -District Chairman's Winner, qualified to attend the 2018 FRC World Championship in Detroit, Michigan.
  -1st place in Chesapeake District
  -Robot Winner
- *Academics-*
  **AP Scholar with Distinction (2018)*
  **Academic Letter (2016 – Present)*
- *Hackathon-*
  *Team Captain of Summer Hackathon sponsored by BigParser and Microsoft (2017)
- *Science Fair-*
  *Prince William/Manassas Regional Science Fair (2015) - 1st place, Physics Division
  *Participated in the 2015 Broadcom Master's program by the Student Society of Science
  *Prince William/Manassas Regional Science Fair (2014) - Honorable Mention, Chemistry Division
- *Saluting Our Stars Awards-*
  *2016 SPARK Saluting Our Stars in Academics (Science Fair), 2015 Micron Saluting Our Stars in Academics
- *Community Service-*
  *Recognized for volunteering at 2017 Haymaker Steam Expo by Congresswoman Barbara Comstock
  *Attended 2017 WestPoint LEAD conference
  *2015 Bronze President's Volunteer Service Award

EXTRACURRICULAR ACTIVITIES

- 3-D Printing and Hobby Electronics/Maker Club (Co-founder and Co-president, 2018-Present) – Organized a club that teaches fellow students how to utilize 3-D printers and hobby electronics platforms such as Raspberry Pi and Arduino. The club also allows students to have more time to work on their research projects, and we teach programming and soldering as well.
- ILITE Cyber Defense Team (Secretary and Ubuntu Co-lead, 2015-Present) – Competed in CyberPatriot National Youth Cyber Defense Competition. Secured Ubuntu 14+ operating systems.
- ILITE FRC Robotics (2017-Present) – Member of the programming sub-team. Programmed an innovative robot and its control system for the FIRST Robotics Competition
- National Honor Society (2017-Present)
- Mu Alpha Theta Math Honor Society (2017-Present)
- SeaPerch Robotics (2016-2017) – Designed and built an underwater robot
- VEX Independent Robotics Team (Lead Programmer, 2015-2016)- Programmed, designed, and created CADs of a competitive VEX robot

- Bull Run Robotics 1489 (2012-2015) – Programmed and built various VEX robots
- GHBLL Baseball (2008-Present)

JOB & COMMUNITY SERVICE EXPERIENCE

- FRC Robotics Competitions Volunteer (20+ hours)
- Bull Run Robotics Club Volunteer (27 hours) – Mentored students as they designed and programmed VEX robots
- INOVA Hospital Volunteer (23 hours)
- ILITE Programming Summer Camp (32 hours) –Taught BASIC and Scratch programming with robots to elementary students.
- Tutor for a variety of courses (200+ hours, intermittent)
- Building computers for friends and family (Variable)

SUMMER ACTIVITIES

- SEAP ONR Apprentice (2018) – Accepted as a research intern (paid) at the Naval Research Laboratory in Washington, DC. I devised a method to measure the F-region of the Ionosphere's topside using a ground point receiver, a low orbit satellite receiver, and a ground HF transmitter system. I also simulated results and performed analysis using a Parabolic-Lorentzian Ionosphere model.
- CTY Carlisle @ Dickinson College (2017) – Accepted into Johns Hopkins Center for Talented Youth summer program. Learned fundamentals of electrical engineering. Built a solar powered roller, designed a rocket launching mechanism.
- MMSS @ University of Michigan (2017) – Accepted into University of Michigan's Math and Science Scholar program. Learned introductory graph theory under the mentorship of Dr. Douglas J. Shaw.
- TYS @ University of Maryland (2016) – Accepted into University of Maryland's Terp Young Scholars program, took a 1 credit class, ENES 100: Introduction to Engineering. Learned fundamental principles of physics and engineering. Built a robotic rescue rover that utilized an Arduino micro controller and various sensors.
- SEP @ University of Virginia (2016) – Accepted into University of Virginia's Summer Enrichment Program. Learned basic game theory and statistics.
- SEP @ University of Virginia (2015) – Accepted into University of Virginia's Summer Enrichment Program. Took an introductory architecture and design course. The course concluded with constructing a cardboard building.

SPECIAL SKILLS AND INTERESTS

- Programming Languages- Java (3 years), RobotC (3 years), Bash Scripting (1 year), Python (1 year), Arduino (1 year), Haskell (1 year), Mathematica (Novice), MATLAB (Novice)
- Soldering & Bread boarding – Intermediate level
- Git Version Control
- Interested in web & mobile development, embedded system design, and machine learning

REFERENCES:

SEAP Mentor: Dr. Paul A. Bernhardt