Nathaniel Y. Chong

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SCHOOL ADDRESS
701 E University
Ann Arbor, MI 48109

PERMANENT ADDRESS
14397 Chalfont Drive
Haymarket, VA 20169

OBJECTIVE	Seeking a freshman internship in CS, EE or a related field (available May 2020).

EDUCATION

University of Michigan Arbor, Michigan — May 2023
Intended B.S.E in Computer Science. Current courses: EECS 203, EECS 280, ENGR 100, UC 280
Battlefield High School Haymarket, Virginia — May 2019
Valedictorian, Rank 1/763. GPA: 4.93/4.0, Early College Scholar
George Mason University Manassas, Virginia — May 2019
Dual Enrolled Guest Matriculate (non-degree through STEM magnet program)
University of Maryland College Park, Maryland — July 2016
ENES 100 Introduction to Engineering and Design summer course (3 Credits)

TECHNICAL EXPERIENCE

U.S. Naval Research Laboratory Washington, D.C. — June 2018 - Aug. 2019
Engineering Intern, Plasma Physics Division
2019 Summer Internship:
- Led the simulation of nonlinear scattering on a diode-loaded dipole to analyze harmonic generation
- Developed 3 nonlinearly loaded dipoles for physical scattering and validation of simulations
- Presenting findings at the 2019 Antenna Applications Symposium at UIUC in September

2018 Summer Internship:
- Computationally modeled the F-region of the ionosphere for analysis of a mathematical model
- Devised a novel measurement technique for the topside parameters of the Ionosphere
- Research is to be presented in a paper (work in progress)

3-D Printing/Hobby Electronics Club Manassas, Virginia — May 2018 - May 2019
Co-Founder and Co-president
- Founded the organization to teach peers how to 3-D print and use hobby electronics platforms such as the Raspberry Pi and the Arduino, also taught skills such as soldering and breadboarding

ILITE Cyber Defense Team Haymarket, Virginia — Sept. 2015 - May 2019
Secretary and Linux Co-Lead
- Created automated bash scripts in order to secure Ubuntu 14+ operating systems
- Documented meeting minutes, and authored newsletters to ensure smooth team operation
- Prepared a thorough curriculum to teach students about Linux cyber security

ILITE FRC Robotics Team 1885 Haymarket, Virginia — Sept. 2017 - May 2019
Programming Team Member
- Designed robot driver display interfaces and programmed network tables for robot telemetry
- Programmed components (pneumatics, sensors, relays, motors) to ensure smooth robot operation

AWARDS & DISTINCTIONS

Science and Engineering Apprenticeship Program – 1st Place for Outstanding Presentation of Summer Research (2018 & 2019)
- Presented research to a panel of judges that consisted of NRL scientists and engineers

FRC Robotics Team 1885 – District Chairman's Winner (2018, 2019), 1st place in Chesapeake District (2018), District Triple Crown Winner (2018)
2019 Raytheon FRC Robotics Scholarship Recipient
2019 Amazon AWS In Communities Scholarship Recipient
2019 Micron STEM Scholarship Recipient
2019 Piedmont Charitable Trust Scholarship Recipient

PUBLICATIONS & CONFERENCES

2019 Antenna Applications Symposium at UIUC
- First author of accepted paper: "Analysis of Nonlinear Scattering with Applications to Harmonic Radar". Paper will be presented and released through the annual conference journal

P. A. Bernhardt et al., "Analytic Electron Density Profiles for Curve Fitting Solutions to Ionosonde, Satellite Occultation, Incoherent Scatter Radar Data and Models," 2018 (Work in Progress).

SKILLS

Java, C++, Bash, Mathematica, MATLAB, Git, Linux, HTML/CSS, Arduino, Soldering, Korean