Jason Dong

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About

I am an incoming Senior at Duke University pursuing a double major in Electrical and Computer Engineering and Computer Science, and a minor in History. I enjoy working with both hardware and software, and seeing how the intersection of both drive the world around us. Based on a reliable use of common sense and experience in leadership and research positions, I am prepared to lead a team or work in a team environment in various job positions.

In my free time, I enjoy working out, playing poker, or watching History films and documentaries.

Education

Duke University Durham, NC
BSE - Electrical and Computer Engineering, BS - Computer Science AUG 2018 - MAY 2022 (EXP)

Carroll High School Dayton, OH
GED *GPA: 4.58 WGPA* AUG 2014 - MAY 2018

Work Experience

Air Force Life Cycle Management Center/EZAS Dayton, OH
Hardware Electrical Engineering Intern JUN 2020 - AUG 2020, MAY 2021 - AUG 2021

- (MAY 2021 - PRESENT) Designing and building payload for a UAV to have greater ADS-B range extension to track aircraft. Current work include interfacing with Raspberry Pi for data acquisition, post processing with Python, and system modelling with Cameo
- (JUN 2020 - AUG 2020)Designed and developed an Arduino-based solar tracking device to recharge batteries to support remote operation of existing projects
- Secret security clearance for work in Aircraft Avionics and RF Technology

Duke University Durham, NC
Teaching Assistant - EGR103, ECE350 JAN 2020 - MAY 2020, JAN 2021 - MAY 2021

- (SPRING 2021) TA for ECE 350: Digital Systems, a class focusing on the design and implementation of digital logic, pipelined processing, FSMs, etc. Assisted students with designing and improving a Verilog based multi-cycle processor and deployment on final design projects onto a FPGA. Graded HW, exams, projects, and held weekly office hours
- (SPRING 2020) TA for Engineering 103: Computational Methods in Engineering, an introductory coding class in Python and using computational methods. Graded weekly lab reports, exams, weekly office hours, and served as lab TA

Air Force Research Laboratory - Materials and Manufacturing Directorate Dayton, OH
Student CO-OP MAY 2019 - AUG 2019

- Researched and documented in a final report proposal of current drone technology to recommend to the Air Force about system hardware, methodology, and other technologies to invest in
- Worked on preliminary research for an automated aircraft damage inspection drone to scan military aircraft for damages due to normal operations, scratching, and corrosion. Evaluated existing consumer technologies for proposal, and course in intro ML
- Experience working in AFRL's Materials Test & Evaluation lab, and worked on lab projects relevant to the Air Force mission
- Experience working with Dynamic Mechanical Analysis (DMA) machine, Fourier-transform Infrared Spectroscopy (FTIR) Machine, and ARAMIS image analysis software

Air Force Research Laboratory - 711th Human Performance Wing Dayton, OH
Wright Scholar Intern |MAY 2017 - AUG 2017| - |MAY 2018 - AUG 2018|

- Worked in areas of Microbiology and Synthetic biology as a research assistant under Dr. Mike Goodson
- Participated as part of the USAF-Carroll iGEM Team, presenting at the biggest yearly synthetic biology convention (2017, 2018) on our work

- Various lab protocols including PCR, mini-prep, gel electrophoresis, nano-drop, autoclaving, DNA bacterial transformations, working with cell cultures and a myriad of E. coli strains (more information upon request)
- Lab organization, assisting mentors with protocols, and extra help with their day-to-day projects.
- Working on a group synthetic biology project and member of the AFRL-Carroll HS iGem (International Genetically Engineered Machine) Team (more information upon request)
- Website creation, and basic HTML and CSS coding to display research results
- Author for various pieces of published literature on school papers and non-profit organizations interested in the iGEM Project (more information upon request)

Skills

Programming Languages:	Java - working proficiency, Python - working proficiency, C/C++ working proficiency, Behavioral Verilog - working proficiency, MIPS x86 - working proficiency, GIT - working proficiency
Website Design:	Ability to work with raw HTML and CSS and website design
3D Printing:	CAD Design, Maintaining and operating 3D Printers
Languages:	Mandarin Chinese - Fluent in speech, comprehension, writing, Spanish - Limited speaking
Video Production:	Experience with iMovie, Thumbnail Editing, banner and logo design

Projects

Please visit my website at thejasondong.com for more in-depth and updated descriptions of my past and ongoing projects.

Activities

Design @ Duke - Treasurer and co-founder

Fall 2020 - Present

Duke Poker Club

Fall 2019 - Present

Asian Students Association - Part of a family with other Duke students, responsible for organizing events and outings

Fall 2018 - Present

Running Club

Fall 2018 - Present