Jason Dong

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About

I am a Senior at Duke University pursuing a double major in Electrical & 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 while continuing to expand my own knowledge base.

Education

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

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

Work Experience

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

- (SPRING/FALL 2021) TA for ECE 350: Digital Systems, a class focusing on the design and implementation of digital logic, memory elements, FSMs, etc. Assisted students with designing and improving a Verilog based multi-cycle pipelined processor and deployment on final design projects onto a FPGA. I grade HW, exams, projects, and hold 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 a weekly lab TA.

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

- (MAY 2021 - AUG 2021) Designed and built payload for an UAV to have greater ADS-B range extension to track aircraft. Work included implementing Python scripts on Raspberry Pi for data acquisition, post processing in MATLAB/Python, electrical wiring, load analysis, housing design, and system modelling.
- (JUN 2020 - AUG 2020) Designed and developed an Arduino-based solar tracking device to recharge batteries to support remote operation of existing projects. I worked with designing the housing unit, electrical and mechanical components, and C++ code.
- (MAY 2021 - PRESENT) SECRET security clearance

Air Force Research Laboratory - Materials and Manufacturing Directorate Dayton, OH
Engineering Intern [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 for an automated aircraft damage inspection drone to scan military aircraft for damages due to normal operations, scratching, and corrosion.
- Experience working in AFRL's Materials Test & Evaluation lab helping with modelling and analysis through MATLAB and Python.

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. Gained experience with various lab protocols and DNA analysis techniques.
- Participated as part of the USAF-Carroll iGEM Team, presenting at the biggest yearly synthetic biology convention (2017, 2018) on our work and publishing a final paper in PLOS.
- Worked on website creation, and HTML and CSS coding to display research results on our website.

Skills

Programming Languages:	Working Proficiency - Java, Python, Verilog, MIPS x86, Git, HTML/CSS Familiar With - C, C++, JavaScript, React, SQL, Swift & iOS Development
3D Printing:	CAD Design, Maintaining and operating 3D Printers
Languages:	Mandarin Chinese - Fluent in speech and comprehension Spanish - Limited speaking
Video Production:	Experience with iMovie, thumbnail editing, banner and logo design

Relevant Coursework

ECE: Computer Architecture, Signals & Systems, Fields & Waves, Microelectronics, Magnetism & Optics, EGR Design & Communication, Digital Systems, Ocean Engineering, Graduate Image & Video Processing

CS: Data Structures & Algorithms, Software Design & Implementation, Operating Systems, Information & the Internet, Design & Analysis of Algorithms

Projects

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

I have experience working in an agile scrum environment, as part of an engineering group interacting with clients, and on solo front-end and back-end software and hardware projects.

Activities

Design @ Duke - Treasurer and co-founder

Fall 2020 - Present

Duke FEMMES - Electrical Hardware Engineering Track Lead, responsible for leading workshops and teaching Arduino programming to local high school girls interested in STEM

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