

Joshua Geden

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Experience	Software Engineer Me.reka Makerspace <ul style="list-style-type: none">Collaborating with 3 engineers on education management platformRefactoring codebase & building admin panel with AngularExpanding server infrastructure & database capabilities with Firebase	May 2021 - Present
	Software Engineer Intern Berkeley National Lab, National Energy Research Scientific Computing Center <ul style="list-style-type: none">Developing software with Python and Javascript to extend JupyterExposing NERSC's HPC and storage systems to JupyterMaking supercomputing more literate and user friendly	May 2021 - Present
	Teaching Assistant Duke University, Computer Science Department <ul style="list-style-type: none">CS230, Discrete Math for Computer Science, Jan 2021 - May 2021<ul style="list-style-type: none">Taught topics including proofs & logic, set theory, induction, probability, and graph theoryCS201, Data Structures & Algorithms, Jan 2020 - Nov. 2020<ul style="list-style-type: none">Taught topics including arrays, linked-lists, maps, trees, queues, stacks, and time & space complexity analysis	Jan. 2020 - May 2021
Education	Duke University , B.S., Computer Science & Linguistics Current GPA: 3.98/4.0 Activities: International Collegiate Programming Competition Club, researching applications of NLP & ML to combat vaccine misinformation with Yang Lab	Aug. 2019 - May 2023
	S.C. Governor's School for Science & Mathematics Graduating Unweighted GPA: 4.0, Weighted GPA: 5.204 Activities: Robotics Team Captain, Computer Science Tutor, Captain of Mock Trial Club, President of Youth in Government Club	Aug. 2017 - May 2019
Honors and Awards	Dean's List , Duke University Charles Ayers Scholarship Recipient , Duke University First Prize, Environmental Science Research , S.C. Junior Academy of Science U.S. Presidential Scholars Candidate	Fall 2019 Aug. 2019 March 2019 Spring 2019
Projects	JupyterHub Custom Entrypoint Service <ul style="list-style-type: none">Created RESTful API with jinja frontend to manage custom entrypoint profilesLaunches Jupyter notebooks in different environments (conda, docker, etc.) Duke Pet Tracker Web Application <ul style="list-style-type: none">Developed a full-stack, multi-user, location-based image sharing web applicationTechnologies used: Vue, Express, Google Firebase, Google Passport OAuth Reduced Instruction Set Computer <ul style="list-style-type: none">Designed a 16-bit MIPS-like word addressed RISC architectureImplemented design in Logisim and tested using MIPS-like assembly files Huffman File Compressor <ul style="list-style-type: none">Used BinaryTrees and PriorityQueues to implement Huffman encoding algorithmAchieved average compression rate of 40% SimplyFrank Simulated Compiler and Assembler <ul style="list-style-type: none">Created a BASIC-like programming language named SimplyFrankImplemented a compiler in C++ to compile SimplyFrank code into simulated assembly code	
Skills	Java, Python (sklearn, Selenium, Tornado), C++, Javascript (React, Angular, Vue, Node), R (dplyr & ggplot) Familiar with Git, Linux, and Docker development environments Coursework in Data Structures, Computer Architecture, Web Applications, & Data Visualization	