

# James Houghton

## PERSONAL INFORMATION

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DATE OF BIRTH: 14 August 1998  
ADDRESS: 215 Tuttle-Dunnington, Charlottesville, VA  
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EMAIL: [jhoughton@virginia.edu](mailto:jhoughton@virginia.edu)  
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WEBSITE: [jhoughton.me](http://jhoughton.me)

## EXPERIENCE

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JUN 2016 - PRESENT	<b>Lead Web Developer at INSIGHT INTERFACES</b> <i>Full-Stack Development and Cloud Deployment</i> Created a browser-based remote teleconferencing application built on top of WebRTC. Developed with the Django web application framework, the Node.js runtime, Socket.IO, and Redis. Became familiar with cloud deployment with AWS (EB, EC2, and RDS) via Docker containers. Honed front-end JavaScript development and webpage design skills in CSS.
SEPT 2013 - JUN 2017	<b>Student Systems Administrator at TJHSST</b> Improved and maintained computer systems used by faculty and students including web servers, workstations, and parallel computing clusters. Made heavy use of AFS, KVM, slurm, and Nginx. Contributed to the student intranet project, a Django-based web application.

## EDUCATION

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May 2021	B.S. and M.S. in COMPUTER SCIENCE, B.A. in PHYSICS - <b>University of Virginia</b>
JUN 2017	Fairfax County Advanced Studies Diploma - <b>Thomas Jefferson High School for Science and Technology</b> Main subjects: Artificial Intelligence, Parallel Computing, Computer Vision, Quantum Mechanics and Electrodynamics

## SKILLS

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WEB APPLICATION DEVELOPMENT:	JavaScript, CSS3, HTML, Django, AWS
LOW-LEVEL PROGRAMMING:	C++, C, MPI, OpenMP, x86 Assembly
VERSION CONTROL AND BUILD SYSTEMS:	git, CMake, GNU Make, libtool
LINUX & SYSTEM ADMINISTRATION:	Nginx, Salt, Docker, Kerberos, KVM, Bash, GPG

## INTERESTS

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Parallel computing, instruction vectorization, compiler optimization,  
Lock-free algorithm design, high-performance low-latency programming,  
The possibilities of quantum computers,  
Nuclear power and liquid fluoride thorium reactors