# Woody Hulse

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## EDUCATION

**Brown University** *2026 (expected)*
Sc.B., Computer Science; Sc.B., Mathematics
S01 Coursework: Abstract Algebra, Probability, Accelerated Intro. Computer Science., Intro. Economics
Clubs: Brown Chess Club, Math DUG, CS DUG, Brown Sports Analytics, Brown Applied Computing

**Jamestown High School** *Valedictorian; GPA 4.67, SAT 1590; National Merit Scholar* *2022*

**Governor's School for Science and Technology** *GPA 5.0/5.0; Presidential Scholar Candidate* *2022*
Relevant College Coursework: Calculus III, Linear Algebra, Differential Equations, Computational Physics

## EXPERIENCE

**NASA, Langley Research Center** *Hampton, VA* *2021-22*
Research Intern; computational fluid dynamics. Co-authored research on application of NASA's flagship CFD solver suite, FUN3D to urban UAV flight using NASA Langley's supercomputing cluster and comparative data analytics with Tecplot and other modeling software; developed a modal neural network-based solver for two dimensional flows to be later presented at conference.

**The Virginia Governor's School for Math, Science, and Technology** *Lynchburg, VA* *2021*
Selective, expenses-paid program at the University of Lynchburg. Independent project developing an arithmetic logic unit and an 8-bit, 4-function calculator with basic circuitry components. [More]

**Independent Research Project** *Hampton, VA* *2020-21*
Developed epidemiological simulation software. Implemented for NHREC School Division to track transmission probability to assess the overall risk of viral spread of Covid-19 and applied experimentally to test the efficacy of disease-preventative measures. HM in Computational Biology in the Virginia State Science and Engineering Fair, 1st at Tidewater Science and Engineering Fair for Comp. Bio.

**Tower Square Securities** *Williamsburg, VA* *2020*
Paid Intern. Investment securities research. Developed web scraping tools in Python to collect and synthesize stock, bond, ETF, and fund data; devised and applied algorithms to value securities under the guidance of financial professionals.

**Food Insecurity Service Project** *WE Service* *2020*
Undertook a yearlong service project, programmed geographic imaging system (GIS) software in Java to compile soil and climate maps to show exactly where each of dozens of crops can be grown worldwide. Graphically displays crop growth patterns in food insecure areas to reduce their reliance on global supply chains, boost impoverished economies, and preserve the environment. College Board WE Service Award.

## SKILLS

**Languages** Python (proficient), Java (proficient), C++ (proficient), C# (good), R (good)
**Abilities** Algorithms, Modeling, Data Science, Machine Learning, Problem Solving

## ACTIVITIES

Governor's School Competitive Programming Team, *President, Captain* (*2020-22),* 1st place team, Virginia, Lockheed Martin CodeQuest (2021, 2022), 1st place team, ODU Great Computer Challenge (2021, 2022)*;* Governor's School Math Team *Captain (2020-22),* 1st place grade 11, CNU Math Competition (2021), 8th place, Virginia Math League (2021); Jamestown High School Scholastic Bowl *(2018-22)* 1st place team, VHSL State Scholastic Bowl Competition (2020); Jamestown High School Debate Team, *President* (*2019-22);* Jamestown High School Chess Club, *Founder, President* (*2020-21)*