Rohan Srivastava

(864) 396 - 3054 • rsrivastava61@gatech.edu • U.S. Citizen
linkedin.com/in/rohan018 • rohansrivastava.com • github.com/RohanSrivastava018

Education

Georgia Institute of Technology **Atlanta, Georgia**
Candidate for Bachelor of Science in Physics *August 2019 - May 2023*

- Concentration in Astrophysics
- Minor in Computing & Intelligence
- College of Sciences Dean's Scholar, President's Undergraduate Research Award, Dean's List, Faculty Honors
- **GPA: 3.96 / 4.0**

Technical Skills

Programming Languages: Python, Java, C, C#, JavaScript, HTML, CSS, JavaFX
Technologies: VSCode, IntelliJ, Jupyter Notebooks, MacOS, Windows OS, Linux, Git, GitHub, BitBucket, GMAT, Unity, Autodesk Eagle, SolidWorks, Docker, yt
Relevant Coursework: Data Structures & Algorithms, Object Oriented Programming, Computational Physics, Intro to Python, Computer Organization & Programming, Intro to AI, Linear Algebra

Experience

L3Harris Technologies **Rochester, New York**
Image Science Engineering Intern *May 2022 – August 2022*

- Developed ∼2000 lines of code to propagate satellites in cislunar space under the physical laws of the circularly restricted three body problem through a python interface of the General Mission Analysis Tool (GMAT) API
- Built a hierarchy of automated python files that will allow a user to easily simulate hundreds of satellites
- Reading/writing data from and to .csv and .xlsx files for ground stations on Earth to be able to see and know where the satellites are currently and where they are going

Georgia Tech Center for Relativistic Astrophysics **Atlanta, Georgia**
Computational Cosmology Group - Research Assistant *August 2021 – Present*

- Collaborate with peers and advisors to analyze datasets from large astrophysical simulations to investigate accretion flows into supermassive black hole progenitors at high redshifts
- Extract and plot data from simulations on Jupyter using yt (Python Package) to find trends of significant stature
- Utilize Linux command-line prompts on a local machine to offload jobs to HIVE (Georgia Tech supercomputer)

Georgia Tech Atomic, Molecular, and Optical Physics Gorup **Atlanta, Georgia**
Parker Research Lab - Research Assistant *December 2020 - August 2021*

- Utilized Autodesk Eagle to design, construct, and test 5 different PCBs ranging from digital analog converters to electromagnetic interference filters that control lasers to cool particles to a millionth of a degree above absolute zero
- Analyzed 200+ Eagle libraries and schematics to incorporate into the final designs of the boards

Georgia Tech Department of Physics **Atlanta, Georgia**
Classical Mechanics I - Teaching Assistant *December 2020 – January 2022*

- Mentor 50+ students in a course involving the applications of Differential Equations to Classical Mechanics
- Execute the grading of 500+ problems biweekly from students' homework, quizzes, and exams

Projects

LeBron or Kareem? **Atlanta, Georgia**
Web App - Python, JavaScript, HTML, CSS, Git, GitHub *March 2022 – Present*

- Programmed a web app that calculates any NBA player's points remaining to pass Kareem Abdul-Jabbar's record
- Python back-end that makes calls to an NBA API to gather statistics and send this information via Flask to a front-end built in HTML with functionality supplied through JavaScript

Dark Side of the Universe **Atlanta, Georgia**
Computational Physics Simulations - Python, Git, GitLab *January 2020 – May 2020*

- Utilized numerical methods in Python to calculate, analyze, and reflect upon the independent effects of dark matter and dark energy on the expansion rate of the Universe
- Programmed 9 different "model universe" simulations under two different theories of expansion while making proper use of the Freidmann and Fluid equations to obtain accurate scale factor values at each time step