

# Christopher Murphy

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**GitHub:** <https://github.com/chrismurphy5>

**LinkedIn:** <https://www.linkedin.com/in/christopher-murphy-974270196/>

## EDUCATION

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**University of the Virgin Islands (UVI)**, Graduating May 13th, 2021

Bachelor of Science in Physics, with a concentration in Astronomy; **3.58 / 4.0 GPA**

Minors in Mathematics and Computational Science

## SKILLS

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- Expert in Python (NumPy, pandas, Matplotlib, seaborn, scikit-learn, TensorFlow, Keras, OpenCV)
- Advanced in machine learning, deep learning, Java and SQL
- Intermediate in HTML, CSS, and JavaScript

**Relevant Coursework:** Applied Data Science, Linear Algebra, Programming with Java I and II, Probability, Data Structures, Statistical Mechanics, Differential Equations

## PERSONAL PROJECTS (Click project name to view)

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**Math Garden Website:** Trained handwritten digit classifier, exported inference graph to TensorFlow.js, ran TensorFlow.js graph in the backend of the website

**Blog Post: What skills do you need to break into Data Science in 2021?**

## HIGHLIGHTED EXPERIENCE

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**Peer Instructor (Physics and Computer Science), UVI**

**Fall 2017 - Present**

- Guide small groups of students through weekly challenge problems
- Motivate discussion and interaction between students to reinforce knowledge

**Student Researcher, UVI**

**Fall 2017 - December 2019, Fall 2020 - Present**

- Lead UVI's High Performance Computing (HPC) undergraduate team in the Winter Classical Invitational Cluster Competition
- Simulate star formation using HPC, with the goal of better understanding star formation
- Developed code that allows time-domain astronomy surveys to learn more about candidate transient events in real time (2019)

**Teaching Assistant (Data Science), UVI**

**Fall 2020**

- Created engaging assignments and quizzes (weekly) to teach students concepts, and immediately test and solidify their knowledge in Python, Exploratory Data Analysis, and Data Visualization
- Actively assisted lead professor in lecture by providing understandable, real world examples of the content being covered

**Intern, Norfolk State University**

**Summer 2020**

- Led team of 4 to apply object detection techniques in order to improve physical security
- Built 4 shadow detectors and 4 weapon detectors using transfer learning, pre trained TensorFlow models, and creative data collection techniques

**Intern, University of California, Berkeley, SETI Research Center**

**Summer 2018**

- Developed Python code that characterizes Satellite Radio Frequency Interference (RFI), laying the foundation for Satellite RFI mitigation
- Presented all weekly progress at the intern meetings
- Operated the Green Bank Telescope and the Parkes telescope remotely for 30 hours respectively

## Activities & Awards

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- Founder of the UVI Data Science club • Deans list every semester
- First Place Winner of the 2018 UVI Fall Student Research Symposium (Overall)
- First Place Winner of the 2020 UVI Fall Student Research Symposium (Computer Science)