Giovanny Espitia

Atlanta, GA| (706) 913-7733| gespitia3@gatech.edu| www.linkedin.com/in/giovanny-espitia

Education

Georgia Institute of Technology, Atlanta, GA *August 2021 – May 2024*
Expected: May 2024
GPA: 4.0

- Candidate for Bachelor of Science in Physics
- Candidate for Bachelor of Science in Computer Engineering
- Member of the Society of Physics Students and Astronomy

Kennesaw State University, Kennesaw, GA *August 2020–July 2021*
GPA: 4.0

- Candidate for Bachelor of Science in Physics

Skills

Programming:	Python, C++, MATLAB, Go, Java, JavaScript, HTML, CSS
Software:	SQL, SolidWorks, Anaconda, Pandas, NumPy, SciPy, Qiskit, LaTex, Microsoft office, Google suite
Concepts:	Machine learning, Scientific computing, Deep learning, Object-oriented programming, Algorithms and Data structures, Linear algebra, Multivariable calculus, Discrete mathematics, Analysis, non-Euclidean geometry, Classical Mechanics, Quantum Computing, Information Theory, Material Science, Quantum Mechanics, Sequence labeling, Effective communication, Data Analytics
Language:	Spanish (advanced), English (native), German (basic)

Research

Research Intern, Georgia Tech Research Institute (GTRI) *May 2022 - Present*

- Use SolidWorks to design parts required for the experimental setup
- Implemented a database using SQL for better sample control
- Implemented a neural network for classification of material composition
- Leveraged various data science tools for data analysis
- Designed and implemented software for rapid data processing

Research Assistant, Georgia Tech Research Institute (GTRI) *January 2022 - Present*

- Apply ML tools for data mining and model discovery
- Constructing a database leveraging Go

Student Researcher, Georgia Institute of Technology *December 2021 - Present*

- Use deep learning to conduct forecasting in chaotic systems
- Design network architectures for the problem at hand
- Conduct data analysis using computer vision
- Use algorithms for mathematical model discovery

Student Researcher, Kennesaw State University *August 2020-May 2021*

- Studied the fracture behavior of graphene
- Performed numerical simulations using the LAMMPS (C++) framework
- Used a high – performance computer for data analysis
- Leveraged various data science tools for analysis and visualization

Projects

Billiard Ball Forecasting *Spring 2022*

- Implemented a billiard ball simulator
- Designed a recurrent neural network for forecasting
- Modified various algorithms for trajectory prediction
- Performed data analysis leveraging tools such as MATLAB and pandas

Personal CV Website *Fall 2021*

- Applied various front-end tools to create a friendly UX
- Leveraged GIT for version control

Awards

- President's list scholar (Fall 2020 – Spring 2022), NCUR researcher, first – year scholar (top 2% of class)