Brady Bolton

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Current Address:
1009 University City Blvd., Apt. H5
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Permanent Address:
13345 Point Rider Ln.
Herndon, VA 20171

Education Computer Science (Primary) and CMDA (Secondary), *Spring 2021*
Minoring in Mathematics and Statistics
GPA: 3.51/4.0

Skills Python, C/C++, MATLAB, R, Java, Git, CUDA/MPI/MPICC, LaTeX, Autodesk Inventor, Arduino, Linux

Recent Projects

Ray Tracing with Parallel Computing
- Worked with parallel computing structures like MPI (Message Passing Interface), MPICH (MPI implementation), and the CUDA platform by NVIDIA
- Utilized the NewRiver computation cluster to generate scenes by simulating light

Data Analysis of VT's Transit System
- Retrieved and analyzed campus-wide data (n = 240) for statistical analysis
- Utilized R programming libraries to uncover pain-points in the transit system

Related Experience

Controls Programmer, Virginia Tech Hyperloop, Fall 2019 – Current
- Using QT platform facilitating real-time sensor data transfer to a remote GUI and communicate with SpaceX's track telemetry system via UDP
- Working closely with aerospace and mechanical sub-teams to understand and simulate pod mechanics

Undergraduate Research Assistant, Socha Labs, Spring 2019 – Summer 2019
- Programmed sensor and servo control/data-acquisition interface for robotic fish
- Worked closely with faculty at the Socha Lab of Biomedical Engineering and Mechanics (BEAM) to empirically reproduce bio-mechanical studies on fish locomotion mechanical efficiency

Co-founder and Lead Designer, Zorse Code LLC, Summer of 2017 – Summer 2018
- Co-founded a gaming start-up that incorporates augmented reality
- Designed and produced Graphical User Interface, artwork, and navigation system

CS Instructor and Fundraiser Coordinator, CS Honor Society, 2015 – 2017
- Coordinated the school's first Code Camp event attended by more than 130 students and featured guest speakers from Microsoft
- Created a curriculum, study materials, and advertisement
- Helped raise more than $4000 toward club goals

Relevant Coursework

Data Analytics and Visualization	Computer Systems
Data Structures and Algorithms	CS Foundations for Computational Modeling
Mathematical Modeling	Computer Organization

Awards and Activities

Microsoft Imagine Cup Competition	Gaming Project at Virginia Tech
Philosophy Club	ACM Programming Team (Fall 2018)
ICPC Team Honorable Mention Award (2018)	Virtual Entities (AI Programming)
4th International MIT Zero Robotics Alliance	