Kenneth Shaw

Junior Undergraduate at Georgia Institute of Technology: kshaw@gatech.edu

Research:

- GT IRIM RAIL Labs (Aug. 2018-present)
  - Working in RAIL (Robot Autonomy and Interactive Learning) on ARL's Distributed and Collaborative Intelligent Systems and Technology (DCIST) project.
  - Simulating heterogeneous robots for task allocation of traits to various tasks from different species of robots that have different gaussian distributions of traits.
  - Created a new Capture the Flag scenario in Unity3D/C# for Monte-Carlo analysis as well as python interface code and the Numpy math.
- Research Assistant at USC ICT (Institute for Creative Technologies) (Summer 2018)
  - Visiting under Dr. Benjamin D. Nye, Director for Learning Science Research, originally a 10 week NSF REU, extended to 12 weeks for additional development.
  - Worked on the ONR MentorPal project that was researching and understanding the impacts of interactive mentor technology on career choices.
  - Created new ML models for two new interactive mentors and web enabled frontend.
  - Field study at Naval Postgraduate School. (Results Pending)
  - Davis, D. M., Predovich, K.B., Spaulding, H. & Shaw, K. (2018). "Enhancing Menteeship: Improving Career Selection for Potential DoD Personnel". In the Proceedings of the SISO Fall Simulation Innovation Workshop, Orlando, Florida:SISO
- VIP (Vertically Integrated Projects) Lightning From Space: (Jan 2018-)
  - Developing new usage of a multi-modal communication platform using APRS as well as cellular for real-time, bidirectional communication from flight to ground.

Extracurricular:

- PennApps Top 30 Winner: Used Tensorflow Image recognition to facilitate recycling
- MIT Launch: Orama (Summer 2017)
  - Two-Factor Authentication with facial recognition API startup
  - Created an adapted dlib algorithm, frontend and communication for a secure client-side vision algorithm.
- ThermoFi Wireless Thermometer and Humidity sensor: (2015-present)
  - Worked to create and sell sensors that monitored the home.
  - Created a server (node.js) which showed monitoring information about the home. (temperature, humidity, air quality etc.)
- FRC Team 293 High School Robotics: (2013-2017 currently: advisor)
  - Lead Control Systems Engineer, President, Robot Driver, Inspector
  - Worked on workshops educating new members on programming.
  - Led many projects such as the Onboard Auto-Targeting System project for "Boulder"/Dodgeball Shot Aiming using OpenCV, on Fine Mechanism Angle Control and Custom Control Boards using TI HID Driver
- Bitcoin Mining: Worked to program early FPGAs to mine Bitcoins efficiently (2013)
  - Admin and founding member of Cryptocurrency Collectors Club on Facebook (currently has 75,000+ members and a wealth of collated information)
  - Specialize in ML trading algorithms for short term positions.

Education:

- Georgia Tech: Computer Engineering/CS Minor in Intelligence (Grad: Spring 2020)
  - ECE 2020 (Digital Logic Design), ECE 2036/2035(Programming Hw/Sw), 2026(DSP), ECE 2031 (Digital Design Lab), ECE 2040 (Circuits), ECE 3020 (Math Found.), ECE 3030 (Physical Foun.), ECE 3056(Comp. Arc. Concurr. Energy), ECE 3550 (Feedback Controls)
  - CS 1371 (Matlab), CS 1331 (Obj. Ori), CS 1332 (Data Structures and algos), CS 3600 (Intro AI), CS 4649 (Robot Inteli. Planning), CS 4641 (Machine Learning)