Erik T. Wijmans

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Education

- **Georgia Institute of Technology** — **Atlanta, GA**
  Doctor of Philosophy, Computer Science, Computer Vision/Artificial Intelligence — 1st Year
- **Washington University in St. Louis** — **St. Louis, MO**
  Bachelor of Science, Computer Engineering, Summa Cum Laude — May 2017
- **Juniata College** — **Huntingdon, PA**
  Bachelor of Science, Engineering Physics, Magna Cum Laude — May 2017

Core Interest

I am very interested in tackling challenging math and engineering problems from a computer science perspective such as the computer vision, machine learning, and network security problems I have worked on.

Core Technical Skills

Languages: C/C++, Python
Libraries: PyTorch, OpenCV, Point Cloud Library

Experience

- **Georgia Institute of Technology** — **Atlanta, GA**
  Embodied QA 3D — 11/2017 – Present
  - Working with Prof. Batra, Prof. Parikh, and, Prof. Essa to utilize RGB-D data for Embodied QA
  - Utilizing the PointNet++ deep neural network architecture
  - Extending the MINOS simulator to utilize the RGB-D sensor data from the Matterport3D dataset.
- **Washington University in St. Louis** — **St. Louis, MO**
  Building Scale RGBD Alignment — 09/2015 – 12/2016
  - Paper in CVPR17, Project site: cvpr17.wijmans.xyz
  - Worked with Prof. Yasutaka Furukawa to design a new method for 3D point cloud rectification
  - Developed an algorithm that extracts floor plan information and dominant directions from a 3D point cloud
  - Aligned with the ground truth floor plan by comparing semi-binary images and generated candidate placements
  - Selected a final placement for each point cloud by examining how consistent placements are with one another
- **Lehigh University** — **Bethlehem, PA**
  NSF REU Fellow, Research Experience for Undergraduates Program — Summer 2016
  - Paper entitled **(Cross-)Browser Fingerprinting via OS and Hardware Level Features** published in NDSS17
  - Worked with Prof. Yinzhi Cao to develop a new way to uniquely identify computers (machine fingerprinting)
  - Created a website that collects data and sends it to a server for analysis
  - Created tools to analyze data and calculate the entropy of machine fingerprints
- **Washington University in St. Louis** — **St. Louis, MO**
  NSF REU Fellow, Research Experience for Undergraduates Program — Summer 2015
  - Worked with Prof. Yasutaka Furukawa to develop an Android® application that guides the user through the process of capturing a 360° panorama while also logging IMU information
  - Created a panorama stitching algorithm that utilizes the IMU information

Honors and Awards

- **Washington University in St. Louis Outstanding Junior Award**
- **Scholarships and Fellowships:**
  - Harold P. Brown Engineering Fellowship
  - Calvert Ellis Scholarship
  - William E. and Florence Schmidt Memorial Scholarship