

William R. Gray Roncal

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EDUCATION	Johns Hopkins University <i>PhD Candidate, Computer Science, 2010 – Present (Post-Masters Certificate 2010)</i> Enabling Data-Driven Neuroscience: Images to Graphs for Inference. The goal of this research is to develop a scalable computer vision framework to create and assess connectomes across multiple modalities, from millimeter (magnetic resonance imaging) to nanometer (electron microscopy). This work supports efforts to democratize science and develop novel algorithms and a deeper understanding of the brain. Taught 2015, 2016 “Introduction to Connectomics” JHU Intersession course.	Baltimore, Maryland
	University of Southern California <i>Master of Science in Electrical Engineering, May 2005</i>	Los Angeles, California
	Vanderbilt University <i>Bachelor of Engineering, Electrical, May 2003. Magna Cum Laude.</i>	Nashville, Tennessee
EXPERIENCE	Johns Hopkins University Applied Physics Laboratory <i>Senior Staff, Project Manager in Research and Exploratory Development Department</i> Task lead for ground truthing and evaluation effort for IARPA MICrONS, a cutting-edge program to map a cubic millimeter (i.e., cortical column) of mammalian cortex. Provide technical and project leadership for several efforts to build and analyze brain graphs (ranging from millimeter to nanometer scale). Developed the first scalable, fully automated pipeline to estimate and assess electron microscopy brain graphs. Contributed system engineering, computer vision, and computational neuroscience expertise to support various scientific endeavors. Projects have included the NIH Synaptomes of Mice and Men Transformative Research Award and MICrONS, which are part of the Presidential BRAIN Initiative. Previously led team to develop a passive sonar target tracking solution that applied across diverse projects and sponsor communities. Provided machine learning and data analysis expertise for several different target detection applications.	Laurel, Maryland
2007 – Present		
2009 – Present	<i>Director of the College Prep Program at APL (STEM Outreach)</i> Co-founder and co-lead for all-volunteer annual summer program to support and encourage underserved students who have the desire and academic potential to excel in college, but who lack the mentoring and resources necessary to achieve their goals. Nearly all program graduates are on track to earning a 4-year college degree. 500+ hour annual volunteer commitment.	
2001 - 2007	Northrop Grumman Corporation <i>Electrical and System Engineer (Intern 2001, 2002)</i> Subject Matter Expert and Responsible Engineer for a group of satellite systems. Regularly interfaced with customers and provided support. Program received 100% Award Fee. Responsible for the design, execution and assessment of several system compatibility tests.	Redondo Beach, California/Chantilly, Virginia
SKILLS AND MEMBERSHIPS	Proficient in Python, MATLAB, LaTeX, MS Office, Linux, OSX, and Windows • Experience with Java, C++, and C • Six Sigma Greenbelt • Engineer Intern (EIT) • Excellent communication and teamwork skills • Secret Clearance • Eta Kappa Nu and Tau Beta Pi Honor Societies	
AWARDS	2015 Author’s First Paper Publication Award for Images to Graphs Manuscript [JHU/APL] 2014 Hart Prize Award for Best Research Project [JHU Applied Physics Laboratory] 2014 Volunteer of the Year Award [Howard County, Maryland] 2009-2013 APL Diversity Awards [JHU Applied Physics Laboratory] 2004-2005 Full-tuition Master’s Degree Fellowship [Northrop Grumman] 2003 Program Award for Top EECS Student [Vanderbilt] 2003 Dean’s Award for Outstanding Service [Vanderbilt] 1999-2003 Full-tuition Harold Stirling Vanderbilt Scholarship [Vanderbilt]	