

**Ruby Abrams, Ph.D.**  
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<b>OBJECTIVE</b>	Seeking meaningful and industrial problems to tackle.	
<b>EDUCATION</b>	<i>Ph.D. in Applied Mathematics</i> University of Arizona, Tucson, AZ	August 2017 - May 2023
<b>TECHNICAL SKILLS</b>	<i>Programming Languages:</i> Julia, MATLAB, Python, Java, C, Bash, SQL. Data Analysis and Processing; Machine Learning; Numerical Simulation; Parallel Computing; HPC; Stochastic Optimization; Mathematical modeling; Graphical Models; Mathematical Physics; Statistics; Strong writing skills; Proficient communication in English, French, Spanish, Dutch.	
<b>EXPERIENCE</b>	<i>Intern/Associate/Postdoctoral Fellow/QM Scientist</i> Critical Path Institute, Amsterdam, Netherlands	May 2021 - Present
	<ul style="list-style-type: none"><li>• Research, Presentation, and Documentation towards Parkinson's Disease Consortia needs</li><li>• Developing Activity Identification and Verification frameworks for DHTs.</li><li>• Developing segmentation, human activity recognition systems, and trajectory reconstruction algorithms on data from wearable devices.</li></ul>	
	<i>Federal Contractor</i> Los Alamos National Labs, Los Alamos, NM	June - August 2020
	<ul style="list-style-type: none"><li>• Performed data generation using a HPC to study seismic wave in a 3D complex medium to answer the question: What is the difference between an earthquake and an explosion?</li></ul>	
	<i>Graduate Researcher</i> University of Arizona Department of Mathematics, Tucson, AZ	August 2017 - May 2023
	<ul style="list-style-type: none"><li>• Analytic solutions of the NLS, MKDV, and KP equations</li><li>• COVID modeling of transmission of infection in communities in Seattle, WA. See our publication: Graphical Models of Pandemic</li></ul>	
<b>PUBLICATIONS</b>	<ul style="list-style-type: none"><li>• Analysis of Equity Markets: A Graph Theory Approach. SIAM Undergraduate Research Online</li><li>• Influenza spread on context-specific networks lifted from interaction-based diary data R. Soc. open sci.8191876</li><li>• Accelerating healthcare innovation: Artificial intelligence and digital health technologies in critical path institute public-private partnerships. Clin Transl Sci. 2024;</li></ul>	
<b>Citizenship: USA, Belgium, RSA</b>		