# Jacob Reinhold

CONTACT INFORMATION Email: jacob.reinhold@jhu.edu

Website: https://jcreinhold.github.io

**EDUCATION** 

**Johns Hopkins University** 

Ph.D., Electrical Engineering

Expected May 2022

The University of Texas at Austin

B.S., Electrical Engineering

December 2016

**PROGRAMMING** EXPERIENCE

Languages: Python, C, C++

Tools: Linux/Unix, Git, LATEX, MATLAB, Mathematica, Docker, Singularity

RESEARCH & PROFESSIONAL **EXPERIENCE** 

### **Johns Hopkins University**

Baltimore, MD

Gradaute Research Assistant

Aug 2017 - Present

Research data normalization and image synthesis techniques for MR images of the brain. Develop machine learning and statistical python packages for image processing and analysis using scikit-learn and PyTorch.

## Applied Research Laboratories, The University of Texas at Austin

Austin, TX

Engineering Scientist Associate

Nov 2014 – Jun 2017

Implemented array processing algorithms. Characterized ionospheric activity through analysis of communication signal data using Python with NumPy, SciPy, Matplotlib, and various other scientific packages. Created software-defined radio applications.

#### Biomedical Informatics Lab, The University of Texas at Austin

Austin, TX

Undergraduate Research Assistant

May 2016 - Aug 2016

Investigated the effect of stereo-viewing digital breast tomosynthesis projection images on lesion detection by conducting tests on simulated breast images with a numerical model observer in MATLAB. Wrote scientific papers and created presentations.

### **US Marine Corps Reserves**

Platoon Sergeant

Feb 2010 - Oct 2015

Responsible for the accomplishment of communication platoon's mission including the wellbeing and professional development of over 20 Marines. Meritoriously promoted to Sergeant.

JOURNAL ARTICLES G. Wen, H. Chang, J. Reinhold, J. Lo, M. Markey, "Virtual assessment of stereoscopic viewing of digital breast tomosynthesis projection images", Journal of Medical Imaging, 2017, accepted for publication.

CONFERENCE

J. Reinhold, G. Wen, J. Lo, M. Markey, "Lesion detectability in stereoscopically viewed digi-PRESENTATIONS tal breast tomosynthesis projection images: a model observer study with anthropomorphic computational breast phantoms" SPIE Medical Imaging Symposium, February 2017, Orlando, FL.

Honors & **AWARDS** 

Ferdinand Hamburger Jr. Fellowship (2017-2018)

Raytheon-SVA Scholarship (2016)

Frederic and Julia Weigl Scholarship (2016) Jean Perkins Combat Veteran Scholarship (2015)

Jerry A. and Martha Lel Hawkins Endowed Scholarship (2014-2015)