

Alexander M Gokan

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Current Position

PhD Student, Laboratory for the Study of Perception, Reality and Illusion 2024-Present
Department of Neuroscience, American University
Advised by Dr. Arthur Shapiro

Education

B.S Computer Engineering 2016-2020
Purdue University

Other Research Experience

Lawrence Livermore National Laboratory Summer 2020
Computational Engineering Intern
Supervisor: Dr. Brian Worthmann
Created new method of geospatially correlating mine-like objects with ground-penetrating-radar images and detections for improved performance characterization methods and visualization
Providing target-level statistics for diagnostics and deeper performance characterization

Purdue University Winter 2019
Supervisor: Dr. Chih-Chun Wang
Created testbed for interfacing with the existing 5G channel simulation tool NYUSIM, for simulating the effects of various transmitter geometries

Lawrence Livermore National Laboratory Summer 2019
Computational Engineering Intern
Supervisor: Dr. Brian Worthmann
Developed algorithm for correcting GPS measurements to enable characterization of ground penetrating radar (GPR) direct detection performance
Created method of interpolating parametrically defined GPS positions and scans into pixel images; performed image processing to determine optimal GPS offsets and measures of uncertainty

Purdue University Part time 2017-2019
Supervisor: Dr. Jan Allebach
Created hand-crafted features for use in comparison to neural network for inkjet printer identification project, in order to aid detection of currency forgery

Teaching

Creative Coding, American University

Introductory programming course for first-year computer science majors and advanced non-majors. Taught using P5.js

Purdue Aerial Robotics Club

Introductory programming and computer vision class, taught for first year electrical engineering majors to get up to speed on contributing to the robotics team. Taught with Python and OpenCV

Papers

Z Li, W Jiang, D Kenzhebalin, A Gokan, J Allebach, "Intrinsic Signatures for Forensic Identification of SOHO Inkjet Printers", in *Printing for Fabrication*, Dresden, Germany, September 2018

Posters

A Gokan, B Worthmann, "GPS Correction for Ground-Penetrating Radar", LLNL Summer Student Poster Symposium, Livermore CA, August 2019

Technical Skills

Software engineering, Git/version control, C/C++, Python, OpenCV, Matlab, Unity, Blender

Industry Experience

Imaging science engineer, L3Harris Technologies, Los Angeles CA

Developed image processing algorithms for defense technology, visible, infrared, and hyperspectral image types. Developed new joint image format/programming language specification for Air Force's new raster image processing requirements