Alex Gokan

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Current Position

American University, Washington DC   2024 - Present
Graduate Program: Behavior Cognition and Neuroscience
PhD Student, first year
Advisor: Dr Arthur Shapiro

Research Interests: Color vision, retinal computation, photometry, hyperspectral imaging, virtual reality and spatial computing

Education

Purdue University, West Lafayette IN   2016 - 2020
BS in Computer Engineering

Work Experience

L3Harris Technologies, Imaging Science Engineer *(secret/interim TS clearance)*   Los Angeles, CA
2020 - 2024
- 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

Publications

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 DOI:10.2352/ISSN.2169-4451.2018.34.231

Posters

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

A Gokan, Z Xu, "Machine Learning for Forensic Printer Identification", Purdue Undergraduate Research Poster Session, West Lafayette IN, April 2018

Previous Research Experience

Lawrence Livermore National Laboratory   Summer 2020
Intern: Computational Engineering   Summer 2019
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
- Developed algorithm for correcting GPS measurements to enable characterization of ground penetrating radar (GPR) direct detection performance

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

Purdue University
Supervisor: Professor 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 Experience

American University
TA for Computer Science 121, **Creative Coding**
Introductory programming course for first-year computer science majors and advanced non-majors.
Taught with P5.js

TA for Psychology 321, **Sensation and Perception**

Purdue University
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

Skills

Git/version control, C, C++, Python, OpenCV, MATLAB, Unity, Blender
Experiments written and deployed with PsychoPy, PsychoJS, and Pavlovia