Jaclyn Brockschmidt

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EDUCATION

University of Washington, Seattle
Bachelor's in Computer Science: Data Science expected graduation June 2020

RESEARCH

On the Generality of Facial Forgery Detection *with Jiacheng Shang, Jie Wu*
Extended abstract and presented at REUNS 2019
Poster presented at 3rd Queer in AI affinity workshop at NeurIPS 2019
June 2019 to present

General Food Segmentation for Food Manipulation Applied to Robot-Assisted Feeding
Ongoing *September 2019 to present*

Adaptive Robot-Assisted Feeding: An Online Learning Framework for Acquiring Previously-Unseen Food Items
Under review: ICRA 2020; ***arXiv****:1908.07088* *September 2019*

Zero Shot Scene Modeling
Ongoing *September 2019 to present*

Curiosity-based Exploration for Planning with POMDPs
February 2019 to June 2019

Man-made Object Detection With LiDAR Mapping Data
Assisted: Senior capstone project *March 2018 to April 2018*

Visual Anchoring: Fixed-Wing UAS Orbit Stabilization About a Visual Anchor Point Without GPS Dependence
Acknowledgement: Master's thesis *September 2017 to December 2018*

UAS Operation and Navigation in GPS-Denied Environments Using Multilateration of Aviation Transponders
Submitted: AIAA Scitech 2019 Forum; ***DOI****: 10.2514/6.2019-1053*
September 2017 to January 2019

AWARDS

Best Paper Award *November 2019*
REUNS workshop at IEEE MASS 2019 for On the Generality of Facial Forgery Detection

2nd Place for Research Presentation Competition *July 2019*
REU Research Symposium at Temple University for On the Generality of Facial Forgery Detection

EXPERIENCE

Personal Robotics Lab
Research Assistant February 2019 to present

- Researching applications of computer vision to robotic perception
- Investigated curiosity as an intrinsic motivator for reinforced learning
- Worked with the Robot Operating System (ROS) on a bimanual manipulator

Pervasive Computing for Smart Health, Safety, and Well-being REU
Research Assistant June 2019 to August 2019

- Explored the practicality of facial forgery detection applications
- Worked with generative adversarial networks (GANs) and utilized transfer learning
- Independently conducted research and compiled findings into a paper within a 10 week period
- Achieved 2^{nd} place for final presentation

Autonomous Flight Systems Laboratory
Research Assistant September 2017 to January 2019

- Project manager for data management application with 7 developers operating within an agile development framework
- Designed and assembled LiDAR mapping data collection system

iD Tech
Instructor June 2018 to August 2018

- Taught machine learning (reinforced learning and image classification) and programming

SERVICE

Tacoma Public Library
Mentor June 2015 to September 2016

- Taught programming to children age 7 to 17
- Researched and implemented learning aides

John Rogers Elementary School
Teacher's Assistant September 2016 to November 2016

- Tutored 1^{st} grade students in mathematics and reading

SKILLS

Programming	Proficient in Python, Java, HTML/CSS, Bash, C#, C
	Competent in Javascript, LaTeX, C++, PHP, Lua, XAML
Software	Linux, Git, MySQL, Visual Studio, Perforce, VMware, SolidWorks
Mathematics	Machine learning, statistics, linear algebra
Frameworks	PyTorch, Tensorflow, CUDA