

FREDERICK KOZLOWSKI

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EDUCATION

Georgia Institute of Technology M.S. in Computer Science	May 2022
Stony Brook University B.Eng. in Mechanical Engineering, Overall GPA: 3.0 Dean's List, University Scholars, Winner of 3D the Campus	May 2019

EXPERIENCE

BNP Associates <i>Project Engineer</i>	September 2019 - March 2020 <i>Fairfield, CT</i>
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- Designed baggage handling systems for airports around the world in Autodesk Revit.
- Optimized and streamlined baggage operations while coordinating with other disciplines.
- Resolved design issues with other disciplines, while ensuring optimum design for conveyor reliability and effectiveness.
- Relentlessly focused on clarity, accuracy, and speed when putting together designs to meet specifications, as well as creatively problem solved to balance design trade offs.
- Participated in the \$3.8 billion JFK T4 redevelopment project by managing the Improvement Works phase of the project and completing field verification of existing conditions.

Lemnis Technologies <i>Computer Vision Intern</i>	May 2018 - August 2018 <i>Singapore</i>
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- Developed world's first video pass-through Augmented Reality for a varifocal platform.
- Integrated a stereo camera, a varifocal Virtual Reality headset and hand detection camera to create a demo which was shown at SIGGRAPH, the largest computer graphics conference.
- Worked in OpenCV, Unity (C#), MATLAB, HLSL to increase perceived comfort by 60%.

Research in Mobile Robotics <i>LIDAR Data Analysis and Map Merging</i>	October 2016 - September 2018 <i>Stony Brook, NY</i>
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- Used ROS to implement SLAM (Simultaneous Localization and Mapping) on P3DX robots to develop occupancy grid mapping.
- Used YOLOv2 neural network framework for object detection and map merging.

PROJECTS

Visual Odometry Implementation	October 2020
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- Implemented monocular VO based on TwitchSLAM.
- Used OpenCV in C++.

Harris Corner Detector Implementation	September 2020
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- Implemented the Harris Corner Detector from scratch to better understand computer vision.
- Used C++17 with OpenCV used exclusively for image handling.

TECHNICAL STRENGTHS

Skills	Modern C++, MATLAB, Java, Excel VBA, Robotics, Computer Vision, Writing
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