FREDERICK KOZLOWSKI

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EDUCATION

Georgia Institute of Technology May 2022
M.S. in Computer Science

Stony Brook University May 2019
B.Eng. in Mechanical Engineering, Overall GPA: 3.0

EXPERIENCE

BNP Associates September 2019 - March 2020
Project Engineer *Fairfield, CT*

- Designed baggage handling systems for airports around the world in Autodesk Revit.
- 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 May 2018 - August 2018
Computer Vision Intern *Singapore*

- Developed world's first video pass-through Augmented Reality for a varifocal platform.
- Integrated a stereo camera, a varifocal VR headset and hand detection for a SIGGRAPH demo
- Worked in OpenCV, Unity (C#), MATLAB, HLSL to increase perceived comfort by 60%.

Research in Mobile Robotics October 2016 - September 2018
LIDAR Data Analysis and Map Merging *Stony Brook, NY*

- Used ROS to implement SLAM (Simultaneous Localization and Mapping) on P3DX robots.
- Used YOLOv2 neural network framework for object detection and map merging.

PROJECTS

D&D Price Creator January 2020

Created a dynamic price generator for Dungeons & Dragons inspired by Fernand Braudel's work

- Used Java to implement agent based trade simulation in which local events affect market prices

Social Media Website November 2020
https://fkozlowski-social-media.netlify.app/

- Created REST backend built with Node.js, Express.js, and MongoDB
- Created a single page application frontend using React.js and Redux

Visual Odometry Implementation October 2020

- Implemented monocular VO based on TwitchSLAM, using OpenCV in C++.

Harris Corner Detector Implementation September 2020

- Implemented the Harris Corner Detector and sub-components like Gaussian Blur and Sobel operator.
- Used C++17 with OpenCV used exclusively for image handling.

TECHNICAL STRENGTHS

Languages	C++17, MATLAB, Java, Javascript, MIPS Assembly
Frameworks & Libraries	Bootstrap, Node.js, Express.js, React.js, Redux, OpenCV
Skills	Excel, Writing, CAD Design, Welding, Numerical Methods