

Niklas Baumgardner

6611 Cannon Farms, Rockford, MI 49341

EDUCATION

Michigan State University – East Lansing, MI

Bachelor of Science in Computer Science Engineering; 3.5/4.0

Anticipated December 2020

- Minor in Mathematics (enrolled in MSU Honors Mathematics program)
- On pace to earn undergraduate degree in 3.5 years
- Related Courses: Algorithms and Data Structures, Software Design, Algorithm Engineering, Biometrics and Pattern Recognition, Data Analysis, Web Development

WORK EXPERIENCE

Michigan State University, Undergraduate Learning Assistant (ULA)

January 2020-Present

- Assisted Dr. Owen for Object-oriented Software Development (CSE 335) to make the class a better experience for students
- Engaged one on one with over 100 students to help further their understanding of the class material in in-person and online settings
- Constructively provided feedback to students and answered their questions to aid in their learning
- Upheld the Spartan Code of Honor and developed a positive relationship with students

Michigan State University, Resident Assistant (RA) – East Lansing, MI

January 2019-Present

- Maintained secure and inclusive living environments in the residence hall where students could effectively learn and reside in, by routinely working 12-hour on-call duty shifts with co-RAs
- Mediated conflict between students residing in the residence halls through the use of coaching, facilitated dialogue, and active listening to grow and develop residents' conflict resolution skills
- Acted as an agent of Michigan State University by enforcing and upholding campus policies in order to ensure peers and residents conducted themselves in a similar manner
- Planned and executed social and academic events to cultivate a stronger community and an enhanced college experience for residents living on Michigan State's campus

Fleis and VandenBrink, Civil Engineer Intern – Grand Rapids, MI:

May 2018-August 2018

- Led a mapping project to record the storm sewer system within the city of Three Rivers in order to develop an accurate ArcGIS model of their current system
- Supervised a team of 6 people that worked on special road markings in Kent and Ionia county to confirm that Michigan roads were marked efficiently and maintained safety standards
- Created an innovative proposal for the sanitary sewer system of the Village of Edmore, Michigan that included a 20-year plan for testing and replacing the sanitary sewer system
- Slope calculations for a street in Pentwater, Michigan to ensure there were no high or low areas in the street that needed to be followed up with regard to leveling

PROJECTS

- Steganographer (Python) – A Steganography tool used to hide messages in the RGB values of an image. Used PIL to access and modify the LSB of the RGB values of the image.
- Text Alert for Open Class (Python) – Python script that looks at how many open seats are available for a given class and alerts me via text if an open seat is available. Used Selenium Chrome driver and Twilio.
- Face Recognition (MATLAB) – A face recognition algorithm that takes in cropped face images and uses PCA to train the eigenfaces and then computes the distance scores for various faces using the eigenfaces.
- UML Wars (C++) – Similar to Space Invaders but instead of spaceships, good and bad UML classes fall and a grader “grades” the UML by shooting the bad UML.