

# Barry Brookins

MECHANICAL ENGINEER

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## CAREER OBJECTIVE

Engineering student versed in reviewing plans, writing reports, researching solutions and implementing company procedures, looking for an entry level position. Strong willingness to learn, follow instructions and work cooperatively within team environments. Self-motivated hard worker with outstanding mathematical and logic skills. Computer competencies include various 2D/3D modeling programs and coding languages.

## SKILLS

2D/3D Modeling	████████
Python	████████
MS Office	████████
MATLAB	████████
Mathematica	████████
Problem Solving	████████
Teamwork	████████
Time Management	████████
Detail Oriented	████████
Creativity	████████

## PROFICIENT SKILLS

- Inventor 2D CAD Modeling Software Proficiency
- AutoCAD 3D Design Software Proficiency
- Python and Microsoft Office Proficiency
- Excellent Verbal and Technical Report Writing Skills
- Innovative Problem-Solving Abilities

## ADDITIONAL PROJECTS

- Completed a project based on Autonomous Vehicles, consisting of lane and vehicle detection along with traffic sign detection/classification. The project was written in Python and utilized multiple techniques for the various features such as hough transforms, convolutional neural networks, deep learning, and cascade classifiers.
- Wrote, enhanced, and updated numerous scripts regarding web automation, algorithm implementation, data parsing, optical image recognition, web scraping, data reduction, and concurrency in Python.

## ACADEMIC BACKGROUND

**Illinois Institute of Technology - Chicago, Ill , 2017 - 2021**  
Bachelor of Science in Mechanical Engineering (BSME), GPA: 3.35  
Deans List: Fall 2017, Spring 2018

### Completed Courses in Major:

Manufacturing Processes, Systems Analysis and Control, Computer-Aided Design, Computational Mechanics, Design of Machine Elements, Heat and Mass Transfer, Applied Thermodynamics, and Advanced Mechanics of Solids.

### Design Projects:

- Designed and fabricated a lightweight sustainable chair using 3/16 in. foam core board.
- Constructed and tested a trebuchet with a main pivot arm axle consisting of acrylic rod.
- Created a bioinspired wall climbing robot to autonomously ascend a pegboard wall.

## INTERNSHIP

**Engineering Intern, May 2019 - August 2019**  
WEC Energy (Peoples Gas)

- Worked in concert with various engineers to perform on-site inspections in order to ensure the safeguarding and preservation of underground utilities consistent with applicable building codes and legal requirements. Compared design engineer drawings to existing utilities to ensure that design was consistent. Optimized use of materials and minimized the comparative ground disturbance by utilizing boring instead of cut and cover techniques.
- Reviewed, processed, documented and verified purchases of required materials utilized by welders; developed a cost savings analysis and submitted recommendations for items to be maintained in the warehouse as stock items to increase productivity and efficiency by eliminating travel time to purchase items.