

# Sam Celani

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## CAREER OBJECTIVE

Gain further understanding of the industry and real-world experience on practical engineering projects through an **internship or** summer/fall **co-op**.

## EDUCATION

**Michigan Technological University – Houghton, MI** August 2014 – May 2019  
Bachelor of Science in Computer Engineering  
Department GPA: **3.07** | Cumulative GPA: 2.87  
**Michigan Technological University – Houghton, MI** Expected Graduation May 2021  
Master of Science in Electrical Engineering  
**Active Alum of Wireless Communications Enterprise** **Member of Keweenaw Pride**

## PROJECT EXPERIENCE

### Vice President, Wireless Communications Enterprise

#### Bird Sensor Team – Project Engineer

- Created a low-cost, low-maintenance sensor to aid in a time study of bird strikes on windows
- Primarily in charge of programming (Arduino)

#### EV Smart Charge Team – Project Manager

- Designed communication structure between Python simulation and Android application

#### Translation Lookup Pairs – Personal Project

[github.com/sacelani/TLPr.git](https://github.com/sacelani/TLPr.git)

- Personal project developed to help myself learn Russian
- Dictionary-based data structure, separated syntactically for specially formatted output
- CLI for grammar help menu and add/edit/delete 'Eng -> Rus' pairs
- Basic Italian port – [github.com/sacelani/TLP.git](https://github.com/sacelani/TLP.git)
- Metadata for topic-based searching and word dumps

## WORK EXPERIENCE

**Advanced Power Systems Research Center – Calumet, MI** May – August 2018 and 2019  
APRA-E Project: NEXTCAR – **Research Assistant/Intern**

- Developed software for wireless V2V, V2C, V2I, and C2V communications using AMQ Protocol
- Intelligently redesigned routing topology for efficient, cycle-free, robust communication
- Developed ease of access tools for navigating the terminal
- Used Simulink, Python (pika module), RabbitMQ (message broker), Cohda DSRC (V2I transceiver)

**US Manufacturing – Warren, MI** June 2016 – August 2016

#### Continuous Improvement – Quality Intern

- Managed daily line defect sheets and Pareto of Defects for several manufacturing lines
- Introduced new system for organizing defect sheets

**Elec/Comp Learning Center Coach – Houghton, MI**

Jan 2018 – Dec 2019

**Intro to Electronics (EE3131) Grader – Houghton, MI**

Sep 2018 – Dec 2018

**Embedded Systems Interfacing (EE4737) TA – Houghton, MI**

Jan 2020 – Present

## TECHNICAL SKILLS

- |                           |                                   |
|---------------------------|-----------------------------------|
| • Microcontrollers        | • Embedded Programming            |
| • CLI Programming and UIs | • Algorithmic design and analysis |
| • Microsoft Office        | • Basic Control theory and design |

## LANGUAGES

| Fluent  | Proficient   | Familiar  | Learning  |
|---|--|---|---|
| <ul style="list-style-type: none"><li>• Python</li><li>• Java</li><li>• C</li></ul> | <ul style="list-style-type: none"><li>• Assembly</li><li>• C++</li><li>• Verilog</li></ul> | <ul style="list-style-type: none"><li>• C#</li><li>• Mathematica</li><li>• Matlab</li></ul> | <ul style="list-style-type: none"><li>• Go</li><li>• Ruby</li><li>• Russian</li></ul> |