# Mark Lim

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## Objective

Seeking to acquire a computer science internship for Summer 2020

## Education

**Purdue University | West Lafayette, IN** *Aug 2019 – Present*

On track for a Bachelor of Science in Engineering, GPA 3.67, Honors College Program Expected Graduation, May 2023

## Skills

**Languages:** Python, C++, C, Java, C#, JavaScript, React, HTML, CSS, MATLAB, Arduino
**Software:** Github, Visual Studio, Autodesk Inventor, JetBrains WebStorm, PyCharm, IntelliJ, & CLion, CATIA, Anaconda Spyder
**Communication:** Technical Drawing, Technical Writing, Public Speaking, Project Management
**Other**: Soldering, Tool Work (saws, drill press, sanders, hand tools, measuring), CAD modeling, Simple Circuits, Microcontrollers

## Experience

**Caterpillar Inc. | Lafayette, IN** *June – August 2019*

***Intern /* Conexus Indiana Intern Program**

- Collaborated with six technicians in the metallurgical laboratory to test 100+ total engine parts from 20+ different parts of the engine
- Assisted engineers in identifying and verifying potential metallurgical issues through analysation and discussion
- Utilized magnetic particle testing, tensile machines, hardness testers, and electron microscopes for Non-Destructive Testing analysis of engine parts

**Aetern Inc. | West Lafayette, IN** *May – August 2018*

***Intern***

- Assisted in programming a boiler system visual interface software in C# using the .net framework
- Created a brief visual summary of key software features and presented information to clients
- Implemented new features for the program that streamlined convenience and usability

## Relevant Coursework

**Honors Introduction to Innovation & Engineering Design I & II:** Ability to model and investigate physical systems with focus on vector analysis, linear momentum, angular momentum, work-energy, and solid material interactions; basics of descriptive statistics, data analysis, sensitivity analysis, and decision making; project management, engineering fundamentals and oral and graphical communication.
**C Programming:** Fundamental principles, concepts, and methods of programming in C; fundamental algorithms and data structures; use of programming logic in solving engineering problems.
**Multivariate Calculus:** Differential calculus of several variables, multiple integrals, and introduction to vector calculus.
**Problem Solving And Object-Oriented Programming:** Problem solving and algorithms, implementation of algorithms in a high level programming language, conditionals, the iterative approach and debugging, collections of data, searching and sorting, solving problems by decomposition, the object-oriented approach, subclasses of existing classes, handling exceptions that occur when the program is running, graphical user interfaces (GUIs), data stored in files, abstract data types.
**Graphical Information and Spatial Analysis:** Course focus on visualization, sketching, graphic standards, and problem-solving strategies for engineering design. Emphasizes the proper use of parametric solid modeling for design intent through CATIA v5.

## Activities & Projects

**Institute of Electrical and Electronics Engineers | West Lafayette, IN** *October 2019 – Present*

***Member /* Microwave Theory and Techniques Society**

- Design and build various electromagnetic wavelength projects
    - Short range radio transmitter and receiver
    - Laser tag emitter and receiver with lights and audio

**Honors Engineering Coursework Projects | West Lafayette, IN** *October 2019 – Present*

- Collaborated with three group members on a semester long miniature rover project
    - Designed, documented, and built a rover that performed line following, cargo handling, and ultrasonic detection
    - Served as the head programmer and main algorithm designer
- Collaborated with three group members on a Python project that optimized cost and efficiency for a solar hydro plant