



# Application to receive Credits for ECE MEng Internship

Internship credit will need to be reviewed to determine if it will meet the MEng internship requirements and to confirm the amount of credits eligible for the internship. Internship credit must be requested and approved BEFORE an internship.

Credit will be given upon completion of the internship with a satisfactory report and letter from your supervisor.

Below is an example list of skills that may be used for the Justification of Credits.

## Sample list for Data Science Machine Learning

- Data wrangling/cleaning
- Extending /refining and testing an (existing) machine learning model in python/julia/matlab
- Deploying a machine learning model on the cloud
- Critically analyzing the performance of a machine learning and communicating findings in writing (or presentations) to team members including identifying failure modes and vulnerabilities
- Reading research papers and implementing state-of-the-art models and comparison performance relative to another model
- Overlap with (up to 4 technical courses in curriculum) – 0.25 per credit up to 1 credit

## Sample List for Autonomous System

- Design control algorithm for an advanced driver assist system (ADAS) or autonomous vehicle
- Use computer vision algorithms for sensor fusion for an ADAS or autonomous vehicle
- Write embedded software to implement such algorithms
- Use control and vision in an autonomous robot or drone
- Field test autonomy algorithms and software

## Sample List for Microelectronics and Integrated Circuits

- Semiconductor device physics and operation principles
- Microfabrication and manufacturing technologies
- MEMS and microsystems
- Integrated circuit design and system integration
- IoT devices, sensors and actuators
- 3D devices, assembly and packaging of heterogeneous devices
- Flexible electronics, optoelectronic devices, wearable and implantable sensors and electronics

At the completion of the Internship, a written internship report and a letter from supervisor of internship attesting to, and describing in greater detail, the ML/DS, AS, or MEIC skills utilized/learned in internship relative to the purported (by student) list of skills, must be submitted to the advisor for a grade for EECS 699.

The report should be equivalent in content and quality to at least a four-page conference publication, excluding figures and references, or 4-10 pages with technical content including figures. It must be of the quality that is suitable for as a conference paper to an applied ML/DS, MEIC, or AS conference.



### MEng Internship Credit Request

Name:	UMID:
Email:	MEng Concentration:
Relevant Courses to Internship:	

Internship Name and Location: \_\_\_\_\_

Supervisor Name and Email: \_\_\_\_\_

Internship Dates: \_\_\_\_\_ Length (*Weeks*): \_\_\_\_\_

Description of Internship:

Justification of Credits: List the subjects/skills used in internship that are related to the concentration:

Credits Requested: \_\_\_\_\_

Advisor Approval: \_\_\_\_\_ Date \_\_\_\_\_