



### Proposed Graduate Studies Plan

<b>Applicants Full Name:</b> Patrick Alan Donald Pragman	<b>UAA Student ID:</b> 30812903
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Please complete this GSP in consultation with your proposed committee chair.

#### A. Degree Information

Degree Sought: Interdisciplinary ☒ MS ☐ MA INDS Title: Computer Vision

#### B. Proposed Committee Members

	Printed Name	Department/College
<b>Committee Chair (requires letter of endorsement)</b> 1 <sup>st</sup> member	Frank Witmer	Computer Science Computer Engineering
2 <sup>nd</sup> Member	Tobias Schwoerer	Natural Resource Economics (UAF)
3 <sup>rd</sup> Member	Matthew Carlson	Biology

\*Please place an asterisk before the name of the committee member from graduate degree program(s) at UAA.

#### C. Courses and Credits

*UAA 600 level credits: (minimum 21 credits)*

Semester	Course Dept. & Number	Course Title	Credits
FALL 2022	STAT F651	Statistical Theory I	3
FALL 2022	CSCE A605	Advanced Artificial Intelligence	3
FALL 2022	CSCE A601	Advanced Software Engineering	3
SPRING 2023	CSCE A698	Individual Research	3
SPRING 2023	STAT F652	Statistical Theory II	4
FALL 2023	CSCE A615	Advanced Machine Learning	3
FALL 2023	CSCE A699	Thesis	3
SPRING 2024	CSCE A699	Thesis	3
SPRING 2024	STAT F653	Statistical Theory III	3

*UAA 400 level credits:*

Semester	Course Dept. & Number	Course Title	Credits
SPRING 2023	MATH A424 or Math A425	Advanced Engineering Mathematics: Linear Algebra and Numerical Analysis or Advanced Engineering Mathematics: Partial Differential Equations and Complex Variables	3

*UA Leveling Courses (100-, 200-, 300-, and or 400- level courses.):*

*These courses are an essential part of preparing you for your program, but do not count toward degree requirements.*

Semester	Course Dept. & Number	Course Title	Credits

**Transfer Courses:** Graduate degree credits will be transferable within the UA system and from any other regionally accredited institution for courses in which the student has received a grade of "B" or better. See the UAA catalog for additional stipulations. All courses must be within the seven year limit and not used towards a prior degree.

Semester	Course Dept & Number	Course Title	Credits

Courses to be transferred from: \_\_\_\_\_  
Name of Institution(s)

**Total Program Credits:**

Research and Thesis/Project Credits (must have at least 6 credits of thesis or project)	9
Graduate Courses (other than A699 thesis credits)	22
Undergraduate Courses (400 level only)	3
Total Number of Credits (30 credits minimum required)	31

**D. Faculty/Committee Chair Endorsement**

A meeting is required (in person, by telephone, or video) between the applicant and their committee chair prior to submission of the UAA Graduate School Application and Proposed GSP to discuss the items below:

Date of Meeting: **2JUN2022**

- Based on the applicant's career and educational goals, please comment on the significance and feasibility of the proposed research and interdisciplinary nature of this effort.

*Due to vision impairment, Pat's flying career was cut short. This INDS MS degree will enable him to expand his programming and statistical skillset to achieve his goal of using machine learning and computer vision to help solve societal problems. The research is interdisciplinary in that it requires skills in statistics, computer programming, data analysis, and familiarity with vegetation properties and seaplanes.*

- Briefly explain why this program does not fit under an existing graduate degree program at UAA.

*UAA currently does not offer graduate degrees in computer science, statistics, or data science, for which this research could reside. Instead, the INDS MS degree enables methods and knowledge from these multiple disciplines to be combined to further the student's career and educational goals.*

- What expertise will be required from the student's committee to assist the applicant in their master's program?

*The student's committee will require and has expertise in machine learning, programming, computer vision, data management, and invasive species.*

- Describe the key academic strengths (or previous employment experience) of the applicant that will increase the likelihood of success in the INDS program.

*Pat's background in flying, mathematics, and programming will increase his likelihood of success. His management and instructor experience will also serve him well during his studies. He is exceptionally motivated to work on this project and take graduate level classes, and I am confident that he will succeed in conducting the necessary research and writing and defending a thesis describing his work.*

Committee Chair Name

Signature

Department/College

Date

Approved by:

Printed Name	Signature	Program/ College	Date
Home Program Director/Chair			
Home College Dean			
Graduate School Dean:		Graduate School	

*Please email the completed form to the Office of the Graduate School ([esmattion@alaska.edu](mailto:esmattion@alaska.edu)) for final approval and processing.*