Copy

Knight-Hennessy Scholars
Stanford University

Application Preview

Please note that this application preview is for your records only. Do not send this document by mail as your application.

Name:	Daniel (Dan) Morton	**Year of Entry:**	2021
Email:	danielpmorton@gmail.com	**Date Submitted:**	

Personal Background

Contact Information

Mailing Address
9 Oneida Pl
Hudson, MA 01749-2854
United States

Permanent Address
9 Oneida Pl
Hudson, MA 01749-2854
United States

Valid From

Valid Until

Primary Phone
+1 978-393-0515

Mobile Phone
+1 978-393-0515

Biographical Information

Sex
Male

Gender (optional)

Birthdate
02/08/1999

Birthplace
Framingham, MA, United States

Primary Citizenship
United States

Secondary Citizenship

☐ U.S. Permanent Resident

U.S. Military or Veteran Status
No U.S. Military or Veteran Service

Race/Ethnicity
(U.S. citizens/residents only)

☐ Hispanic ☐ American Indian/ Alaska Native ☐ Asian ☐ Black/African American ☐ Native Hawaiian/ Pacific Islander ☑ White

White - Europe

Spoken Languages

English	Fluent - native or bilingual proficiency

Undergraduate Funding Sources

Employment	5%
Family	70%
Loans	0%
Scholarships/Grants	25%

Copy

Family Information

1

Relationship: Father
Name: Jim Morton
Living?: Yes

☐ I have limited information about this parent/guardian.

Occupation/Title, Employer: Electrical Engineer, Raytheon
Highest Level of Education Completed: College degree

College (Degree & Year): WPI (BS, Management and Computer Science, 1985)
Graduate School (Degree & Year):

2

Relationship: Mother
Name: Lori Morton
Living?: Yes

☐ I have limited information about this parent/guardian.

Occupation/Title, Employer: Accountant, Hudson Police Department
Highest Level of Education Completed: Graduate degree

College (Degree & Year): Holy Cross (BA, English, 1989)
Graduate School (Degree & Year): Clark University (MA, English, 1993)

3

Relationship:
Name:
Living?:

☐ I have limited information about this parent/guardian.

Occupation/Title, Employer:
Highest Level of Education Completed:

College (Degree & Year):
Graduate School (Degree & Year):

4

Relationship:
Name:
Living?:

☐ I have limited information about this parent/guardian.

Occupation/Title, Employer:
Highest Level of Education Completed:

College (Degree & Year):
Graduate School (Degree & Year):

Do you have a relative or significant other who is planning to submit an application for admission to a Stanford graduate degree program for autumn 2021?

☐ Yes ☑ No

Name	Relationship to You	Graduate Degree Program	Applying to KHS

Graduate Degree Program

Graduate Degree Program Selection

Select below whether you will pursue one or two graduate degree programs at Stanford, using the below guidelines.

One graduate degree program	• You are applying to one program. • You already have been admitted to one program. • You are applying to the Biosciences PhD programs only.
Two graduate degree programs	• You are applying to a joint- or dual-degree program, or to one academic program and one professional program. *For example: JD/MBA, Medical Scientist Training Program (MD/PhD), Berg Scholars Program (MD/MS), Business (PhD) / Economics (PhD).* • You already have been admitted to a joint- or dual-degree program. • You already have been admitted to one program, and you are applying to another program to pursue concurrently. • You are an enrolled Stanford graduate student applying to add a new degree program.

☑ I will pursue one graduate degree program at Stanford.

☐ I will pursue two graduate degree programs at Stanford.

Graduate Degree Program 1	Admission Status	Entry Term
Aeronautics and Astronautics (MS)	Applying	Autumn 2021

Graduate Degree Program 2	Admission Status	Entry Term

PhD Applicants Only

Academic Interests

Briefly describe your PhD research interests.

List up to three Stanford faculty members whose research interests best align with yours and who could serve as potential research advisors. You may list faculty members outside the graduate program you are pursuing.

Faculty Member 1	Faculty Member 2	Faculty Member 3

Copy

Academic History

Undergraduate/Graduate Study

1

Institution	Location
Cornell University	Ithaca, NY

Level of Study	Dates Attended	Degree	Degree Date
Undergraduate	08/2018 - 05/2021	Bachelor of Science	05/2021

Major	GPA	GPA Scale	Class Rank
Mechanical Engineering	4.11	4.3	

2

Institution	Location
Northeastern University	Boston, MA

Level of Study	Dates Attended	Degree	Degree Date
Undergraduate	08/2017 - 06/2018		

Major	GPA	GPA Scale	Class Rank
Mechanical Engineering	3.97	4	

3

Institution	Location

Level of Study	Dates Attended	Degree	Degree Date

Major	GPA	GPA Scale	Class Rank

4

Institution	Location

Level of Study	Dates Attended	Degree	Degree Date

Major	GPA	GPA Scale	Class Rank

5

Institution	Location

Level of Study	Dates Attended	Degree	Degree Date

Major	GPA	GPA Scale	Class Rank

Secondary School/High School

School Name	Location	Dates Attended
Hudson High School	Hudson, MA	09/2013 - 06/2017

Cornell University

Office of the University Registrar
B07 Day Hall
Ithaca, New York 14853-2801
t. 607.255.4232
f. 607.255.6262
univreg@cornell.edu

How to Authenticate the Official eTranscript from Cornell University

This Official eTranscript has been transmitted electronically and is intended solely for use by the specified recipient. If you are not the intended recipient, please notify the Office of the University Registrar at Cornell University.

The eTranscript is considered an official Cornell University transcript in PDF format as long as the Blue Ribbon seal is displayed. If printed, the words VOID VOID VOID will appear to indicate that the paper copy is not an official institutional document. The transcript key is the last page of the eTranscript.

This eTranscript has been digitally signed and therefore contains special characteristics. If this document has been issued by Cornell University, and for optimal results, we recommend that this document is viewed with the latest version of Adobe® Acrobat or Adobe® Reader; it will reveal a digital certificate that has been applied to the transcript. This digital certificate will appear in a pop-up screen or status bar on the document, display a blue ribbon, and declare that the document is certified by Parchment with a valid certificate issued by Globalsign for Adobe. This document certification can be validated by clicking on the Signature Properties of the document.

Please be aware that you will only have access to download this eTranscript for **30** days from the date the document was published, and you are only allowed **5** attempts to download it. This document may be uploaded to a 3rd party application, however not all applications will accept this format.

The blue ribbon symbol is your assurance that the digital certificate is valid, the document is authentic, and the contents of the transcript have not been altered.

If the transcript does not display a valid certification and signature message, reject this transcript immediately. An invalid digital certificate display means either the digital signature is not authentic or the document has been altered. A document with an invalid digital signature display should be rejected.

If the digital certificate status is unknown, make sure the computer has an active internet connection. If there is a properly working internet connection and the digital signature cannot be validated, reject the document.

You must use Adobe Reader or Adobe Acrobat to view the eTranscript; it cannot be viewed with other PDF viewers. The current version of Adobe Reader is free of charge and available for download at www.adobe.com.

If you have any questions or concerns regarding the authenticity of this eTranscript, please contact the Office of the University Registrar at Cornell University at univreg@cornell.edu or (607) 255-4232.

RECORD OF: Daniel P Morton

RECORD DATE: 10/7/2020

CORNELL I.D. NO.: 4458373

COURSE TITLE	SUBJECT/NUMBER		MEDIAN	TOTAL ENROLLED	UNITS	GRADE
FALL 2018						
Program: Engineering						
Plan: Mechanical Engineering						
STATICS & MECHANICS OF SOLIDS	ENGRD	2020	(B-)	(247)	4.00	A
THERMODYNAMICS	ENGRD	2210	(B)	(204)	3.00	A+
ENGINEERING IN REALITY II	ENGRG	1401	(N/A)		1.00	SX
INDIVID/GROUP PROJECTS IN M.E.	MAE	4900	(A)	(322)	3.00	A+
COURSE TOPIC(S): INDEPENDENT RESEARCH						
DIFFERENTIAL EQUATIONS ENGRS	MATH	2930	(B)	(444)	4.00	A-
PHYSICS II: ELECTROMAGNETISM	PHYS	2213	(B+)	(471)	4.00	A-
TRANSFER CREDIT FROM NORTHEASTERN UNIVERSITY						
APPLIED TOWARD ENGINEERING PROGRAM						
Transfer Totals:					34.00	
TEST CREDITS APPLIED TOWARD ENGINEERING PROGRAM						
AP English Language & Composit	ENGL	1100F			3.00	5.0
AP Mathematics: Calculus BC	MATH	1910			4.00	5.0
AP Psychology	PSYCH	1101			3.00	5.0
Transfer Totals:					10.00	
DEAN'S LIST						
SPRING 2019						
Program: Engineering						
Plan: Mechanical Engineering						
FWS: MARX, NIETZSCHE, FREUD	GERST	1170	(A-)	(41)	3.00	A+
DYNAMICS	MAE	2030	(B+)	(141)	3.00	A
MECHANICAL SYNTHESIS	MAE	2250	(A-)	(152)	4.00	A+
INDIVID/GROUP PROJECTS IN M.E.	MAE	4900	(A)	(318)	3.00	A+
COURSE TOPIC(S): INDEPENDENT RESEARCH						
LINEAR ALGEBRA FOR ENGINEERS	MATH	2940	(B)	(557)	4.00	A+
DEAN'S LIST						

Rhonda K Kitch

RHONDA K. KITCH, PH.D.
UNIVERSITY REGISTRAR

COURSE TITLE	SUBJECT/NUMBER		MEDIAN	TOTAL ENROLLED	UNITS	GRADE
FALL 2019						
Program: Engineering						
Plan: Mechanical Engineering						
INTRODUCTION TO AERONAUTICS	MAE	3050	(B+)	(65)	3.00	A
INTRODUCTORY FLUID MECHANICS	MAE	3230	(B+)	(120)	4.00	A+
MECH OF ENGINEERING MATERIALS	MAE	3270	(B+)	(118)	4.00	A
MECHATRONICS	MAE	3780	(B+)	(134)	4.00	A
INDIVID/GROUP PROJECTS IN M.E.	MAE	4900	(A)	(287)	3.00	A+
COURSE TOPIC(S): INDEPENDENT RESEARCH						
DEAN'S LIST						
SPRING 2020						
Program: Engineering						
Plan: Mechanical Engineering						
DURING THE SPRING 2020 SEMESTER, THE COVID-19 PANDEMIC REQUIRED SIGNIFICANT CHANGES TO COURSEWORK. UNUSUAL ENROLLMENT PATTERNS AND GRADES REFLECT THE TUMULT OF THE TIME, NOT NECESSARILY THE WORK OF THE INDIVIDUAL.						
HEAT TRANSFER	MAE	3240	(N/A)		3.00	A
SYSTEM DYNAMICS	MAE	3260	(N/A)		4.00	A
INDIVID/GROUP PROJECTS IN M.E.	MAE	4900	(N/A)		3.00	A+
COURSE TOPIC(S): INDEPENDENT RESEARCH						
DYNAMICS OF FLIGHT VEHICLES	MAE	5070	(N/A)		3.00	A+
PHYS III-OSC WAVES & QUAN PHYS	PHYS	2214	(N/A)		4.00	A
FALL 2020						
Program: Engineering						
Plan: Mechanical Engineering						
PROBABILITY MODELS	ECON	3110	(N/A)		0.00	
INTRO SPACEFLIGHT MECHANICS	MAE	4060	(N/A)		0.00	
FLUIDS AND HEAT TRANSFER LAB	MAE	4272	(N/A)		0.00	
PROFESSIONAL PRACTICE IN M.E.	MAE	4300	(N/A)		0.00	
INNOVAT PROD DESGN DIGITAL MFG	MAE	4341	(N/A)		0.00	
INDIVID/GROUP PROJECTS IN M.E.	MAE	4900	(N/A)		0.00	
COURSE TOPIC(S): INDEPENDENT RESEARCH						

Cumulative GPA: 4.107

END OF TRANSCRIPT

SEND TO: Daniel Morton
DOCID:30779747
United States

Cornell University

Office of the University Registrar
Ithaca, NY 14853-2801
univreg@cornell.edu

CNC	-	Course cancelled after the ninth week of term.
FS, FWS	-	First-Year Writing Seminar - Equivalent to one term of English Composition at many institutions.
GL	-	In the descriptive title area - course taken at graduate level by Summer Session and Extramural students only.
H	-	"HONORS" for LL. M. Candidates.
HH	-	"HIGH HONORS" for LL. M. Candidates.
INC	-	Course not completed for reasons acceptable to Instructor.
NA	-	Not attending.
NG	-	Non-graded course - Grades are not awarded for these courses.
NGR	-	No grade reported - Instructor has not submitted a grade for this course.
R	-	Represents multi-term course not graded until the end of the sequence.
S/U	-	"S" means C- or above; "U" means D+, D, D- or failure.
SX/UX	-	Indicates that a course is graded exclusively on "S" or "U" basis.
V	-	Visitor - Audit; course taken on a non-credit basis.
W	-	Indicates withdrawal from course after deadline.
*	-	Preceding credit hours - indicates temporary credit. Total credit earned with final grade for course appears in the term following.
*	-	In the grade field - indicates that the course was originally graded INC and has subsequently been completed.

Cornell Study Abroad - Transcript indicates courses taken, credits earned and foreign grades received. Foreign grades are not translated to the Cornell grading system.

Physical Education - Before 1982, Physical Education courses automatically printed on the transcript. If student took the course, the grade would be SX. If student did not enroll in the course, the grade would be UX.

Accreditation - Cornell University is accredited by the Middle States Association of Colleges and Schools.

Language - All courses are taught using the English language with the exception of certain language courses, e.g., French Literature or Japanese.

Median Grades - Median grades are posted on transcripts for all undergraduates matriculating in the Fall 2008 and after. Median grades are not reported for all courses.

Credit Hour Definition

A student will receive one credit by satisfactorily completing a course that requires at least fifteen hours (15) of instruction and at least thirty hours (30) of supplementary assignments. Hours are adjusted proportionately for other formats of study, e.g., laboratory, studio, research problem-based learning, and independent study.

Dean's List

Posting the Dean's List notation began with Fall term 1971. Dean's List awards are posted for all Undergraduate units.

Grading Systems prior to September 1965

These are described on a separate sheet which is provided with appropriate transcripts.

Current Grading System

Grades are on a letter scale: A+ through D-, pass; F, failure. The grades of S (satisfactory) or U (unsatisfactory) may be used when no greater precision in grading is required. Grades of S or U are not assigned numerical value and thus are not averaged with other grades in computing grade point averages.

Letter grade values are combined with course credit hours to produce an average based on a 4.3 scale.

For the purpose of computing semester, year or cumulative averages, each letter grade is assigned a quality point value as follows:

A+	=	4.3	B+	=	3.3	C+	=	2.3	D+	=	1.3
A	=	4.0	B	=	3.0	C	=	2.0	D	=	1.0
A-	=	3.7	B-	=	2.7	C-	=	1.7	D-	=	0.7

F = 0

Beginning with Fall term 1983, Law School averages are computed using the following point values:

A+	=	4.33	B+	=	3.33	C+	=	2.33	D+	=	1.33
A	=	4.00	B	=	3.00	C	=	2.00	D	=	1.00
A-	=	3.67	B-	=	2.67	C-	=	1.67	D-	=	0.67

F = 0

There is only one official university transcript for an individual student which represents the complete Cornell University academic record.

TO TEST FOR AUTHENTICITY: Translucent globe icons *MUST* be visible from both sides when held toward a light source. The face of this transcript is printed on red SCRIP-SAFE® paper with the name of the institution appearing in white type over the face of the entire document.

CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY • CORNELL UNIVERSITY

ADDITIONAL TESTS: The word VOID appears as a latent image. When this paper is touched by fresh liquid bleach, an authentic document will stain. A black and white or color copy of this document is not an original and should not be accepted as an official institutional document. This document cannot be released to a third party without the written consent of the student. This is in accordance with the Family Educational Rights and Privacy Act of 1974. If you have any questions about this document, please contact the Office of the University Registrar, univreg@cornell.edu or (607) 255-4232. ALTERATION OF THIS DOCUMENT MAY BE A CRIMINAL OFFENSE!

182507 10/2018 SCRIP-SAFE® Security Products, Inc. Cincinnati, OH

Official Academic Transcript from

Northeastern University

Statement of Authenticity

This official academic transcript has been delivered to you through eSCRIP-SAFE, the Global Electronic Transcript Delivery Network, provided by Credentials eScrip-Safe, 9435 Waterstone Blvd, Suite 260, Cincinnati, OH 45249, 1-847-716-3805. Credentials eScrip-Safe has been appointed and serves as the designated delivery agent for this sending school, and verifies this sender is recognized by the accreditation source identified below

This official academic transcript was requested, created, and released to the recipient following all applicable state and federal laws. It is a violation of federal privacy law to provide a copy of this official academic transcript to anyone other than the named recipient.

This PDF document includes: the cover page, the official academic transcript from the sending school, and the academic transcript legend guide.

The authenticity of the PDF document may be validated at the Credentials eScrip-Safe website by selecting the Document Validation link. A printed copy cannot be validated.

Questions regarding the content of the official academic transcript should be directed to the sending school.

Sending School Information

Northeastern University
Transcript Office
360 Huntington Avenue
Boston, MA 02115
Telephone: 617-373-2300
School Web Page: http://www.neu.edu
Accreditation: New England Association of Schools and Colleges, Comm on Institutions of Higher Ed (NEASC-CIHE)

Student Information

Student Name: Daniel Morton
Numeric Identifier: 001865810
Birth Date: Not Provided By the Sending School
Student Email: morton.d@husky.neu.edu

Receiver Information

Danielpmorton@gmail.com

Document Information

Transmitted On: Tue, 27 November 2018
Transcript ID: TRAN000015655753

Save this PDF document immediately.
It will expire from the eSCRIP-SAFE server 24 hours after it is first opened.
Validate authenticity of the saved document at escrip-safe.com.

This document is intended for the above named receiver.
If you are not the identified receiver please notify the sending school immediately.

Transcripts marked 'Issued to Student' are intended for student use only.
Recipients should only accept academic transcripts directly from the sending school.

NORTHEASTERN UNIVERSITY

Northeastern

Office of the University Registrar
230-271
360 Huntington Avenue
Boston, MA 02115-5000
email: transcripts@northeastern.edu web: http://www.northeastern.edu/registrar/

Record of: Daniel Morton NUID: 001865810
Issued To:

Danielpmorton@gmail.com
Student email:
morton.d@husky.neu.edu

Primary Program
B.S. in Mechanical Engineering
College : College of Engineering
Major : Mechanical Engineering

SUBJ	NO.	COURSE TITLE	CRED	GRD	PTS	R
TRANSFER CREDIT ACCEPTED BY THE INSTITUTION:						
TransferFrom		Advanced Placement				
ENGW	1111	First-Year Writing	4.00	T		
HIST	1130	History of the United States	4.00	T		
MATH	1341	Calculus 1 for Sci/Engr	4.00	T		
MATH	1342	Calculus 2 for Sci/Engr	4.00	T		
PHYS	1147	Physics for Life Sciences 2	4.00	T		
PHYS	1148	Lab for PHYS 1147	1.00	T		
PSYC	1101	Foundations of Psychology	4.00	T		
Ehrs: 25.000 GPA-Hrs: 0.000 QPts: 0.000 GPA: 0.000						
INSTITUTION CREDIT:						
Fall 2017 Semester						
CHEM	1151	Gen Chem for Engineers (HON)	4.00	A	16.000	
ECON	1115	Principles of Macroecon (HON)	4.00	A	16.000	
GE	1000	Intro to the Study of Eng(HON)	1.00	A	4.000	
GE	1501	Cornerstone of Eng 1 (HON)	4.00	A	16.000	
HONR	1102	Honors Discovery	1.00	A	4.000	
MATH	2321	Calculus 3 for Sci/Engr	4.00	A	16.000	
Ehrs:18.000 GPA-Hrs: 18.000 QPts: 72.000 GPA: 4.000						
Dean's List						
Spring 2018 Semester						
GE	1502	Cornerstone of Engineer 2 HON	4.00	A	16.000	
MATH	2341	Diff Eq and Lin Alg for Engr	4.00	A	16.000	
ME	2340	Intro to Material Science	4.00	A-	14.668	
ME	2341	Lab for ME 2340	1.00	A	4.000	
PHYS	1151	Physics for Engineering 1(HON)	3.00	A	12.000	

********** CONTINUED ON NEXT COLUMN **********
******* END OF STUDENT ******

SUBJ	NO.	COURSE TITLE	CRED	GRD	PTS	R
Institution Information continued:						
PHYS	1152	Lab for PHYS 1151 (HON)	1.00	A	4.000	
PHYS	1153	Interact Learn PHYS 1151(HON)	1.00	A	4.000	
Ehrs:18.000 GPA-Hrs: 18.000 QPts: 70.668 GPA: 3.926						
Dean's List						
Summer 1 2018 Semester						
AERD	5113	International Study: Italy	0.00	S	0.000	
HUSV	4866	Intercultural Studies HS	4.00	A	16.000	
SOCL	4580	ST: Discovering Eternal City	4.00	A	16.000	
Ehrs: 8.000 GPA-Hrs: 8.000 QPts: 32.000 GPA: 4.000						

********** TRANSCRIPT TOTALS **********

	Earned Hrs	GPA Hrs	Points	GPA
TOTAL INSTITUTION	44.000	44.000	174.668	3.970
TOTAL TRANSFER	25.000	0.000	0.000	0.000
OVERALL	69.000	44.000	174.668	3.970

********** END OF TRANSCRIPT **********

Copy

Northeastern University, Office of the Registrar
271 Huntington Ave.
Boston, MA 02115

SCALE OF GRADES AND COMMENTS TO ACCOMPANY TRANSCRIPTS

Effective Fall 2016: College of Professional Studies undergraduate programs converted from a quarter system to a semester system. For student records including hours earned prior to fall 2016, the credit hour conversion rate is as follows: QH x .75. For example a 4-credit quarter course is now equivalent to a 3-credit semester course.

Effective Fall 2009: Northeastern University converted its Student Information System. All courses and Programs were converted.

Northeastern University Course Numbering

UNDERGRADUATE

Orientation and Basic No degree credit	**0001-0999**
Introductory Level (First year) Survey, Foundation and Introductory courses normally with no prerequisites and designed primarily for students with no prior background	**1000-1999**
Intermediate Level (Sophomore/Junior year) Normally designed for sophomores and above, but in some cases open to freshman majors in the department.	**2000-2999**
Upper Intermediate Level (Junior year) Designed primarily as courses for juniors. Pre-requisites are normally required and these courses are pre-requisites for advanced courses.	**3000-3999**
Advanced Level (Senior year) Designed primarily for juniors and seniors, or specialized courses. Includes research, capstone and thesis.	**4000-4999**

GRADUATE

Orientation and Basic No degree credit	**0001-0999**
1st level graduate Courses primarily for graduate students and qualified undergraduate students with permission	**5000-5999**
2nd level graduate Generally for Master's only and Clinical Doctorate	**6000-6999**
3rd level graduate Master's and Doctoral level classes. Includes Master's Thesis	**7000-7999**
Clinical/Research/Readings Includes Comprehensive Exam Preparation	**8000-8999**
Doctoral Research and Dissertation	**9000-9999**

Northeastern University Grade Scale

Letter Grade	Numerical Equivalent	Explanation
A	4.0	Outstanding Achievement
A-	3.667	
B+	3.333	
B	3.0	Good Achievement
B-	2.667	
C+	2.333	
C	2.0	Satisfactory Achievement
C-	1.667	
D+	1.333	
D	1.0	Poor Achievement
D-	0.667	
F	0.0	Failure
I		Incomplete
IP		In Progress
NE		Not Enrolled
NG		Grade not reported by Faculty
S		Satisfactory (Pass/Fail basis; counts toward total degree requirements)
U		Unsatisfactory (Pass/Fail basis)
X		Incomplete (Pass/Fail basis)
L		Audit (no credit given)
T		Transfer
W		Course Withdrawal

Course Comments

E	Course excluded from GPA
HON	Honors level course
I	Course included in GPA

LAW SCHOOL

CR	Credit
F	Fail
H	Honor
HH	High Honor
I	Incomplete
MP	Marginal Pass
P	Pass

Earned Hours

Northeastern University offers both quarter hour and semester hour programs.

Quarter Hours to Semester Hours Conversion Rate: For student records including quarter hours, the approved semester hour conversion rate is as follows: QH x .75. For example a 4-credit quarter course is equivalent to 3 credit semester courses.

Work Experience

1

Organization Name: Cornell Organic Robotics Lab

Location: Ithaca, NY

Sector: Public

Position/Title: Undergraduate Researcher

Dates of Employment: 08/2018 - present

Hours/Week: 9

Job Type: Part-time

Organization's Activities

Soft robotics research, focusing on 3D printing, polymer chemistry, and new ways that robots can sense and interact with their environment

Your Responsibilities

Design of prosthetic hands, soft lattice structures with embedded fiber optic sensors, and presently a morphing wing which alters its geometry to optimize aerodynamic performance

Your Accomplishments

These new soft sensing technologies have allowed me to design "living" structures. My research on the morphing wing is nearing completion, with a first-author paper expected before May.

Your Challenges

Improving the manufacturability of my designs; learning entirely new software and mathematical modeling not used in my lab before; and teaching other graduate students in the lab

Reason for Leaving

(Still working)

2

Organization Name: NASA Marshall Space Flight Center

Location: Huntsville, AL

Sector: Public

Position/Title: Intern, Propulsion Research & Technology

Dates of Employment: 06/2020 - 08/2020

Hours/Week: 40

Job Type: Internship

Organization's Activities

Improving tech readiness for propulsion methods enabling long-term exploration needs. My team was particularly interested in nuclear propulsion

Your Responsibilities

Evaluated the potential of nuclear-thermal airbreathing propulsion with a magnetically-accelerated launcher. Additionally: designed and analyzed the heat transfer through TPMS heat exchangers

Your Accomplishments

Presented an analysis of the enabling physics and key limitations of the propulsion system to the department; as well as programmed tools to allow NASA to further study my heat exchanger designs

Your Challenges

Adapting to the virtual work environment, which made it tougher to learn and interact with my coworkers. But despite this, I was still able to explore my own side project and self-teach new skills

Reason for Leaving

Internship ended

Work Experience

3

Organization Name: Boeing

Location: Mukilteo, WA

Sector: Private

Position/Title: Intern, Payloads and Systems Product Development

Dates of Employment: 05/2019 - 08/2019

Hours/Week: 40

Job Type: Internship

Organization's Activities:
Commercial airplane development; design of new structures, systems, propulsion methods, and more, to improve performance/efficiency/marketability

Your Responsibilities:
Designed components to integrate cabin electronics/sensors into the ecoDemonstrator testbed; team lead on a structure/stowage hackathon concept; constructed new carbon-fiber components

Your Accomplishments:
I filed a patent on the concept I developed with my team; also, the components I designed and my circuit board work were integral to getting the project flight-ready by the ecoD program deadline

Your Challenges:
Surprisingly, one of the biggest challenges was dealing with an overload of incomprehensible acronyms. I made sure to include "translation guides" on my own presentations to help with this

Reason for Leaving:
Internship ended

4

Organization Name:

Location:

Sector:

Position/Title:

Dates of Employment:

Hours/Week:

Job Type:

Organization's Activities:

Your Responsibilities:

Your Accomplishments:

Your Challenges:

Reason for Leaving:

Activities and Interests

1

Organization or Activity: Cornell Bio-Inspired Fluids Lab

Role(s): Volunteer designer, COVID filtration structures

Location: Ithaca, NY

Dates of Participation	Hours/Week	Weeks/Year	During or After College	Number of Participants
05/2020 - 08/2020	6	14	During college	1-10

Why did you get involved?

I knew I wanted to continue volunteering for the medical field, especially for a project related to COVID. By chance, I was reading an article about COVID filter research, and having experimented with similar structures in the past, I reached out to the authors and started helping immediately

What did you achieve and/or learn?

After dozens of iterations with the team, I put together 4 finalized filter lattices to be integrated into a 3D-printable, highly reusable/cleanable mask. These modeling techniques ended up being extremely useful for the heat exchanger work I did at NASA, which was based on similar structures

2

Organization or Activity: Weill-Cornell Med

Role(s): Volunteer artificial heart structure designer

Location: Ithaca, NY

Dates of Participation	Hours/Week	Weeks/Year	During or After College	Number of Participants
04/2020 - 06/2020	4	8	During college	1-10

Why did you get involved?

This opportunity was the perfect way for me to return to my interest in medical volunteer work, something that had been on pause since my previous work on prosthetics ended. Additionally, it was a fascinating application of the skills I've developed in my research

What did you achieve and/or learn?

I came up with two potential artificial heart designs which use soft, compressible structures to expand and contract under hydraulic actuation. These are 3D-printable in silicone and will match the geometry of the diastolic/systolic phases of the heart, based on true-to-life 3D scans.

3

Organization or Activity: Cornell Orientation Committee

Role(s): Orientation Leader (for transfer students)

Location: Ithaca, NY

Dates of Participation	Hours/Week	Weeks/Year	During or After College	Number of Participants
08/2019 - 08/2020	15	2	During college	11-25

Why did you get involved?

Despite the short-term nature of being an OL, this is one of the most rewarding experiences I've been a part of. Adapting to a new school after transferring was a difficult process for me personally, but my own OL helped significantly -- I hoped to help my new students in the same way.

What did you achieve and/or learn?

I helped students in both the traditional orientation (2019) and the part-virtual orientation (2020). For 2020, I redesigned the typical orientation activities to suit the virtual environment and promised to hold an additional orientation in the spring for anyone not on campus this semester

Copy

Awards and Honors

1

Award or Honor Received: McManus Design Award

Date Received: 05/2019

Basis of Selection

Awarded for my design work on: "Optical Lace for Synthetic Afferent Neural Networks".
Selected from MAE undergrads and graduate students: "Judgment criteria will be based on a technical paper of single or joint authorship, presenting an original solution to a design problem or project". Typically 1-2 winners are selected annually; awards are faculty-nominated.

Why is this award or honor meaningful to you?

This is the single most meaningful award I've received, and yet for a long time I didn't feel I deserved it. I was awarded jointly alongside the grad student I was working with, who is truly a brilliant and inspiring individual. After receiving this, it showed me that my advisor believed in my potential in the lab, and it encouraged me to take on larger challenges within my research.

2

Award or Honor Received: Goethe Prize

Date Received: 05/2019

Basis of Selection

Awarded for my paper: "Forbidden Fruit, or Natural Instinct? On the Genesis of Western Morality"
From the award info: "The Goethe Prize is awarded annually for the best essay on any topic connected with German literature or culture". Typically there are 3 winners annually -- 1 grad student, 1 junior/senior, and 1 freshman/sophomore. Selected by faculty in the German department

Why is this award or honor meaningful to you?

Another award I didn't expect to win, this one was meaningful primarily due to the great relationship I had with my professor in this writing class (focused on Marx, Nietzsche, and Freud), as well as showing myself that I can study and pursue my interests outside of engineering, such as philosophy.

3

Award or Honor Received:

Date Received:

Basis of Selection

Why is this award or honor meaningful to you?

Test Scores

Aptitude

GRE

Test Date	Verbal	Quantitative	Analytical Writing
09/06/2020	163 (92%)	164 (83%)	4.5 (80%)

LSAT

Test Date	Total

GMAT

Test Date	Total	Verbal	Quantitative	Analytical Writing	Integ Reasoning

MCAT

Test Date	Total	C/P	CARS	B/B	P/S

C/P = Chemical and Physical Foundations of Biological Systems, CARS = Critical Analysis and Reasoning Skills,
B/B = Biological and Biochemical Foundations of Living Systems, P/S = Psychological, Social, and Biological Foundations of Behavior

Pre-2015

Test Date	Total	Verbal Reasoning	Physical Sciences	Biological Science

GRE Subject

Test Date	Subject	Total

Test Date	Subject	Total

English Proficiency

TOEFL

Test Type:

Test Date	Total	Listening	Reading	Writing	Speaking

IELTS

Test Date	Overall Band Score	Listening	Reading	Writing	Speaking

PTE

Test Date	Total	Listening	Reading	Writing	Speaking

Daniel Morton

danielpmorton@gmail.com | 978-393-0515 | linkedin.com/in/danielpmorton

Education

Cornell University, College of Engineering, Ithaca NY — Expected: May 2021

- Bachelor of Science in Mechanical Engineering. Minor in Aerospace Engineering
- GPA: 4.11
- Activities: Orientation Leader, ASME, Reserve Tennis Team, Ski Club
- Honors:
  - 2019 McManus Design Award – "Optical Lace for Synthetic Afferent Neural Networks"
  - 2019 Goethe Prize – "Forbidden Fruit, or Natural Instinct? On the Genesis of Western Morality"

Experience

NASA, Marshall Space Flight Center --- Intern, Propulsion Research & Technology — June 2020 – August 2020

- Modeled the feasibility of a nuclear-thermal airbreathing vehicle launched from a magnetically-accelerated track. Formed preliminary design targets based on propulsive/electrical/aerodynamic constraints and mission capabilities
- Programmed tools in MATLAB and COMSOL to create, modify, and analyze additively-manufactured TPMS lattice structures in heat exchangers. Developed custom implicit functions for optimal heat exchange and flow pathways

Boeing, Mukilteo/Everett WA --- Intern, Payloads and Systems Product Development — May 2019 – August 2019

- Designed the attachment components for new wiring/control systems for future cabin electronics on the 2019 ecoDemonstrator 777-200 flight test airplane. Worked with vibration and stress to certify for flight readiness
- Filed for intellectual property on a new stowage structure integrated into the cabin floor, maximizing accessibility and safety for passengers. Led a team of six to pitch a full-scale mockup of the design to executives
- Collaborated with Structures Product Development to construct experimental composite doors and wing fairings

Organic Robotics Laboratory, Cornell University --- Undergraduate Researcher — August 2018 – Present

- Researching and designing a soft robotic morphing wing with a variable-compliance internal lattice structure. Controlling curvature and lift capabilities through distributed actuation along the wingspan, and refining the design through topology optimization and FEA.
- Using intelligent structures with embedded fiber optic "nerves" to sense deformation and allow for feedback control

Volunteer work

COVID-19 Air Filters, Cornell Bio-Inspired Fluids Lab — May 2020 – August 2020

- Created bifurcating filtration structures, to be deployed in rapidly-available 3D-printed face masks

Artificial Heart Structures, Weill Cornell — April 2020 – June 2020

- Modeled structures which transition between the systolic/diastolic phases of the heart under hydraulic actuation

e-NABLE Prosthetics — January 2015 – May 2017

- Designed open-source 3D-printed prosthetic hands for softball and golf at 2% the price of competing products

Skills

Software:	CATIA v5, Autodesk Inventor, SolidWorks, Fusion 360, AutoCAD, COMSOL, nTopology
Coding:	MATLAB, C, C++, Arduino/Microcontroller programming
Miscellaneous:	Additive Manufacturing, Computational Modeling, Cornell Machine Shop Trained (Mill and Lathe)

Other History

Boy Scouts of America --- Eagle Scout — September 2005 – February 2017

Copy

Recommendation Letters

Recommender 1

Name: Teresa King

Organization: Boeing

Position/Title: Project Engineer

Relationship: Mentor, 2019 Internship

Email: tkingtime@gmail.com

Phone: +1 206-455-5482

The information you provide in your application is — after you engage in enrolled attendance as a Stanford student and to the extent it is retained — covered by the Family Educational Rights and Privacy Act of 1974 (FERPA). FERPA also permits students to waive the right of access to letters of reference if you so choose. Waiving your right of access is optional; your decision to waive or decline to waive that right will have no bearing on the handling of your application. Your recommender will be notified of your choice.

- [x] I waive my right to access this report.
- [ ] I do not waive my right to access this report.

Signed by: Daniel Morton

Recommender 2

Name: Robert Shepherd

Organization: Cornell University

Position/Title: Associate Professor

Relationship: Research advisor, Organic Robotics Lab

Email: rfs247@cornell.edu

Phone: +1 607-279-2845

The information you provide in your application is — after you engage in enrolled attendance as a Stanford student and to the extent it is retained — covered by the Family Educational Rights and Privacy Act of 1974 (FERPA). FERPA also permits students to waive the right of access to letters of reference if you so choose. Waiving your right of access is optional; your decision to waive or decline to waive that right will have no bearing on the handling of your application. Your recommender will be notified of your choice.

- [x] I waive my right to access this report.
- [ ] I do not waive my right to access this report.

Signed by: Daniel Morton

Short Answers

Short Answer 1

After graduating from Stanford, what are your immediate and long-term intentions?

I'd like to take advantage of the interaction between my aerospace/medical interests to make advancements in the aerospace field, specifically targeting areas aligned with science and exploration rather than defense and the military. For example, improving rapid transit of medical supplies by drone, sustaining passenger health on long-term space exploration missions, increasing low-cost access to space for scientific/medical research, human organ manufacturing in Low-Earth Orbit, improving global connectivity in low-resource areas, -- the possibilities are endless.

From a longer-term perspective, my childhood dream of becoming an astronaut seems both feasible and highly applicable to the types of problems I'd like to solve. Additionally, understanding that not every problem has a strictly mechanical engineering solution, this public position would allow me to tackle some of the larger issues facing our planet which are more aligned with policy/regulation, through advocating for science as well as for a greener and more equitable future.

Short Answer 2

How will your Knight-Hennessy Scholars experience prepare you to realize your intentions?

Through the Knight-Hennessy program, I'm hoping to complement my graduate studies with the incredible benefit of gaining a greater perspective of the world around me. With members of the cohort coming from all corners of the Earth, I'd love to spend hours talking with each student. Learning from their unique experiences will guide my leadership development in the program, taking with me skills I'll apply through the extent of my career

Additionally, many of my longer-term intentions deal with finding solutions to large-scale issues that don't necessarily have clear engineering solutions. Knowing that the rest of the cohort is committed to similar goals, I'd like to take advantage of the heterogeneity of the group and rethink the challenges at hand from every viewpoint. I have high hopes for the insights we'll bring and the solutions we'll uncover, not only for problems within my field but those outside as well.

Short Answers

Short Answer 3

Please tell us eight improbable facts (things that are unlikely but true) about you.

1	I'm a fitness nut, but my diet on Saturdays solely consists of doughnuts from my favorite local shop
2	Give me an old pocketwatch and I'll have it disassembled and reassembled in record time
3	I made it into the Cornell newspaper for my piscine pitching prowess against Harvard's hockey team
4	Over the past five years, I've skied the equivalent of driving from San Francisco to San Diego
5	I have an excess of old cell phones, each one modded and running custom software
6	I'm a published photographer (Well, just one picture, but I'm proud of it)
7	I have an array of 3D-printed parts strewn across my desk, ranging from small airplanes to complex mathematical lattices described by a single equation
8	I recently spent an entire weekend doing audio mixing on a new track. Have I never done this before? You bet. Did it release to a resounding flop? Oh yeah.

Short Answer 4

Please tell us when and how you:

Made someone particularly proud of you	I received my Eagle Scout award five years ago and could see the pride in my family's eyes (a long line of Eagles); fully understanding the feeling three years later when I stood beside my brother at his own ceremony.
Were most challenged	Last year I had two graduate students working with me on my morphing wing research. These were incredible people who came from significantly different backgrounds than myself: one a pilot, and one a simulation engineer. Leading the project despite the age/experience gap was a huge challenge but an extremely valuable learning experience.
Did not meet expectations	For someone so interested in robotics, it isn't a great look that after pulling an all-nighter, I uploaded buggy code to a robot that ended up costing my team the class competition. I don't think I ever learned so much from a single project, but the result was disappointing to say the least

Essay

Connect the dots. How have the influences in your life shaped you?

Embedded in a cage of cold steel, a brass heart beats incessantly, driven by the continual expansion and contraction of the silicon lungs above it. The mechanical, yet organic nature of the balance wheel and hairspring of a watch movement allows the watch to come alive, with every interlocking gear tooth, every pinhole with micrometer precision, every minuscule drop of grease being critical for the operation.

Connecting the dots has led me to view my world through a mechanical framework; the connections between people and events represented as intermeshing components, entangled with the passage of time.

Yet, every gear or spring, every "dot" or influence in my life, hasn't been simply points on a timeline -- they're the people I've met along the way, and the interactions I've had with them. Connecting these necessitates highlighting the individuals and teams who have shaped who I am today.

My time at Boeing began through a multi-college hackathon, where, as the project lead, I was able to learn from my teammates, each with a common interest in aviation despite coming from vastly different backgrounds. The months spent with them sparked my interest in the aerospace field, which was amplified later that year upon returning as an intern. And it was here that a single chance conversation with a coworker about shape-memory alloys for vortex-generator deployment ended up inspiring my current morphing wing project at Cornell.

I've worked in the Organic Robotics Lab since arriving at Cornell and still, not a day passes without learning something new from the other lab members. Initially, these students helped me integrate with the Cornell community and pursue the medical device research which drove my decision to transfer to Cornell. As time passed and my interests shifted, my advisor and the other students supported me every step of the way, allowing me to confidently pursue my independent research. Later, having two new graduate students join my project presented me with a tough leadership challenge, but getting to know their backgrounds gave the project a new perspective, with their influences reflected in the near-final designs I'm working on today.

Additionally, the interdisciplinary nature of the lab and the unique interests of those around me allowed me to think outside the box and merge concepts across fields of research. Because of this, I could take my research into the mathematics of TPMS lattice structures and apply it not only to micro-scale COVID air filtration structures (a pleasant return to the medical field for me) but also highly-efficient heat exchangers for NASA.

My time at NASA was a dream come true: I was working with an unbelievable organization with equally incredible engineers, and while being remote made interacting with my team challenging, I cherished every video call. My primary project allowed me to collaborate with my mentor on a conceptual launch system he was interested in, while at the same time, I led a side project based on my interest in additive manufacturing. This side project wouldn't have come to fruition, though, if not for another intern on my team, who aided me through the heat transfer analysis while I explained the structural design and optimization.

With each gear, each influence carefully set in place, I'm now in a unique position with my multidisciplined background where I can apply both (seemingly disparate) interests: aerospace and medical technology, towards a common goal. Particularly, enabling further exploration within the aerospace field, both from an autonomous/robotics perspective as well as a human perspective, focusing on bioinspired systems and human-robot interaction. Connecting the dots has clarified this purpose; now, it's time to set it in motion.

Additional Information

Previous Application

Have you previously submitted an application to Knight-Hennessy Scholars? ☐ Yes ☑ No Entry Term:

Personal Conduct

Have you ever been convicted of a crime, had a criminal charge sustained against you in a juvenile proceeding, or been placed on a court-supervised probation, or do you have a criminal charge pending against you? ☐ Yes ☑ No

Have you ever been suspended, dismissed, or placed on enforced leave from any college, university, or post-secondary institution or been the subject of disciplinary action by such an institution? ☐ Yes ☑ No

Have you ever been placed on academic probation by any college or university? ☐ Yes ☑ No

Minding the Gap(s)

Has there been a period exceeding three months when you were neither working nor in school since you completed high school/secondary school? ☐ Yes ☑ No

One Last Thing

You may feel free to use the space below to share essential information not conveyed elsewhere in your application.

I'm currently applying for the MS in Aero/Astro but if awarded the Knight-Hennessy, I will absolutely continue my study to the PhD, as I'd love to use the additional time to fully get to know the rest of the cohort. I also understand the Aero/Astro department has changed the path between an MS and PhD recently, so I'll take the necessary steps to join this program if I'm accepted

Copy

Agreement to Application Terms

Please read this text carefully. This is what you are agreeing to when you apply to the Knight-Hennessy Scholars program.

By submitting this application, you consent to Stanford University's collection and processing of any sensitive personal data contained in your application to evaluate your application and for the other purposes described in Stanford University's Online Privacy Policy, Offline Privacy Policy, and the Privacy Notice for Admissions and Financial Aid, which can be found at privacy.stanford.edu.

Your application materials and supporting information become the property of Stanford University once you submit them.

Your application is for the KHS class matriculating in 2021. The Knight-Hennessy Scholars program does not offer deferrals of enrollment.

Please note that your application materials, in addition to being used in the Knight-Hennessy Scholars selection process, may be used as part of the selection process for any Stanford graduate program or for any source of financial support available to Stanford.

If you are offered admission, we want you to make an informed decision. For this reason, we may share limited information with Stanford alumni, students, and/or programs who may contact you to welcome you to the Stanford community and answer your questions.

If you are offered admission, Stanford reserves the right to withdraw that offer if 1) you show a significant drop in academic performance or fail to graduate; 2) there has been a misrepresentation or material omission in, or a violation of, any of the terms of the application process; or 3) we learn that you have engaged in behavior prior to the first day of program attendance that indicates a serious lack of integrity or judgment. Stanford further reserves the right to require you to provide additional information and/or authorization for the release of information about any such matter.

Your electronic signature below represents your agreement to the terms of this application and its instructions, and your confirmation/declaration that all of the information that you have provided in this application is your own work and, to the best of your knowledge, complete and accurate. You further agree that you will promptly inform the Knight-Hennessy Scholars program of any change in any of the facts presented or answers given in your application. Your signature also constitutes your consent to Stanford (or its agent) having the right to verify any information presented in or relating to your application.

Signed by: Daniel Morton Date: 10/14/2020