Aksh Ravishankar

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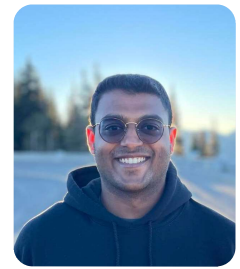
Education

B. Eng. | Sept 2018 – April 2023 | Carleton University
- Major: Computer Systems Engineering with a GPA of 3.7.
- Related coursework: Computer architecture, Object-oriented development, Data structures and algorithms, Intro to machine learning, Network and cyber security, Communications engineering, Project management

Experience

Software Quality Assurance Intern | Circle NVI | May 2021 – July 2022
- Proposed, developed, and maintained a scalable **automated testing framework** using Selenium/Python.
- Responsible for performing and documenting **software testing** steps on various platforms.
- Designed medium-fidelity **mock-ups** and architecture plan for mobile app.
- Implemented a **Continuous Deployment pipeline** to optimize development and testing workflow.
- Worked with customers to gather requirements and usage workflows.
- Used and maintained Docker environments in Linux to simulate deployment.

Infrastructure Intern | Hatch Ltd. | May 2018 – September 2018
- Worked with Light Rail Transit team to analyze traffic flow using simulation software.
- Worked with Software Development team to build in-house simulation integration tool.

Teaching Assistant | Carleton University | January 2021 – Current
- Responsible for helping students understand and apply concepts from Python and C/C++ courses.
- Worked with professors and coworkers to improve course delivery using student feedback.

Student Outreach Representative | Carleton University | December 2019 – December 2022
- Reaching out to prospective students and answering queries about program specifics and university life.
- Documenting interactions between students and callers.

Projects

StaySafe
- Developed a person-tracker device that counted people entering and exiting a doorway to keep count of the number present in a store; designed to help reduce the spread of COVID-19 in small indoor spaces
- Built using a Raspberry Pi and a connecting app that can be installed on any android device to share a live video feed.

Autonomous Car – Lane Following System
- Implemented an edge-detection-assisted Deep Learning hybrid model to identify lane boundaries in real-time in an autonomous car.
- Used traditional optimization techniques and pre-processing to reduce layers and analyze live video on-device.

Skills

- *Languages*: Python, Java, C/C++, Verilog, Linux/Unix Kernel, Windows Command Line, Bash
- *Tools*: Deep Learning (CNN), Computer Vision, TensorFlow/PyTorch, OpenCV, Git, JIRA, TeamCity, BitBucket, Docker, Maven, PyTest, OpenSSL, Embedded / SoC Dev
- *Leadership*: Skills gained as an Air Cadet Warrant Officer and as a Teaching Assistant, mentored students to facilitate learning

Accolades

Eric Sigurdson Award – 2020-22 | Dean's Honor List recipient –2019-22 | J. Lorne Grey Scholarship – 2019

References

Nishanth Gandhi nishanth.gandhi@circlenvi.com – QA Manager at Circle NVI
Susan McMillan susan.mcmillan@hatch.com – Project Manager at Hatch Ltd.

Carleton University Unofficial Transcript

Department and Course Title	Course Number	Credit Value	Grade	Grade Point	Comments
Fall 2018 (September-December)					
BACHELOR OF ENGINEERING CIVIL CO-OPERATIVE EDUCATION					
English: Lit., Psychology, and the M:	ENGL 1300	0.50	A-	5.00	
Math/Stats: Calculus for Engin. or Pl	MATH 1004	0.50	A+	6.00	
Math/Stats: Linear Algebra (Eng. or §	MATH 1104	0.50	A	5.50	
Engin.: Problem Solving and Computers	ECOR 1606	0.50	A	5.50	
Engin.: Introduction to Engineering	ECOR 1010	0.50	B+	4.50	
Winter 2019 (January-April)					
BACHELOR OF ENGINEERING CIVIL CO-OPERATIVE EDUCATION					
Comm. Crses Discipline & Prof.: Commu	CCDP 2100	0.50	A-	5.00	
Math/Stats: Diff. Eqs. & Series Eng.	MATH 1005	0.50	A+	6.00	
Phys.: Electromagnetism & Wave Motior	PHYS 1004	0.50	A	5.50	
Chem.: Chemistry for Engineers	CHEM 1101	0.50	A-	5.00	
Engin.: Mechanics I	ECOR 1101	0.50	A-	5.00	
Good Standing					
Fall 2019 (September-December)					
BACHELOR OF ENGINEERING COMPUTER SYSTEMS CO-OPERATIVE EDUCATION					
Math/Stats: Multivariable Cal. Eng or	MATH 2004	0.50	A	5.50	
Math/Stats: Modeling and Comp. Methoc	MATH 3800	0.50	A	5.50	
SysComp. Eng.: Foundations Imperative	SYSC 2006	0.50	A	5.50	
SysComp. Eng.: Intro to Digital Syste	SYSC 2310	0.50	A	5.50	
Elect.: Circuits and Signals	ELEC 2501	0.50	B	4.00	

Department and Course Title	Course Number	Credit Value	Grade	Grade Point	Comments
Winter 2020 (January-April)					
BACHELOR OF ENGINEERING COMPUTER SYSTEMS CO-OPERATIVE EDUCATION					
Earth Sciences: Evolution of the Eart	ERTH 1011	0.50	A-	5.00	
Math/Stats: Mathematical Methods I	MATH 3705	0.50	A+	6.00	
SysComp. Eng.: Intro. Computer Org. a	SYSC 2320	0.50	A+	6.00	
SysComp. Eng.: Object-Oriented Softwa	SYSC 2004	0.50	A+	6.00	
Elect.: Electronics I	ELEC 2507	0.50	A-	5.00	
SysComp. Eng.: Algorithms and Data St	SYSC 2100	0.50	A+	6.00	
Good Standing					
Summer 2020 (May-August)					
BACHELOR OF ENGINEERING COMPUTER SYSTEMS CO-OPERATIVE EDUCATION					
Engin.: Engineering Economics	ECOR 3800	0.50	A+	6.00	
Fall 2020 (September-December)					
BACHELOR OF ENGINEERING COMPUTER SYSTEMS					
SysComp. Eng.: Comp Syst Development	SYSC 3010	0.50	A	5.50	
SysComp. Eng.: Systems and Simulatior	SYSC 3600	0.50	B+	4.50	
Engin.: Design/Analysis of Experiment	ECOR 2050	0.50	B	4.00	
SysComp. Eng.: Intro to Software Engi	SYSC 3020	0.50	A	5.50	
SysComp. Eng.: Intro to Real-Time Sys	SYSC 3310	0.50	A	5.50	
Winter 2021 (January-April)					
BACHELOR OF ENGINEERING COMPUTER SYSTEMS					
Tech.Soc.Env.St.: Science&Fiction:Cre	TSES 4012	0.50	A+	6.00	
SysComp. Eng.: Real-Time Concurrent §	SYSC 3303	0.50	A+	6.00	
SysComp. Eng.: Computer Systems Desig	SYSC 3320	0.50	A	5.50	
SysComp. Eng.: Operating Systems	SYSC 4001	0.50	A-	5.00	
SysComp. Eng.: Communication Theory	SYSC 3501	0.50	A-	5.00	
Good Standing					

Carleton University Unofficial Transcript

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Department and Course Title	Course Number	Credit Value	Grade	Grade Point	Comments	Department and Course Title	Course Number	Credit Value	Grade	Grade Point	Comments
Fall 2022 (September-December)											
BACHELOR OF ENGINEERING COMPUTER SYSTEMS											
SysComp. Eng.: Engineering Project	SYSC 4907	0.00	CTN								
Elect.: Elec Mat, Dev & Trans Media	ELEC 4705	0.50	A+	6.00							
SysComp. Eng.: Computer Systems Arch	SYSC 4310	0.50	A+	6.00							
SysComp. Eng.: Computer Communication	SYSC 4602	0.50	A+	6.00							
SysComp. Eng.: Network and Software	SYSC 4810	0.50	A+	6.00							
SysComp. Eng.: Computer Systems Desig	SYSC 4805	0.50	A+	6.00							
Winter 2023 (January-April)											
BACHELOR OF ENGINEERING COMPUTER SYSTEMS											
Engin.: Professional Practice	ECOR 4995	0.50	CUR								
SysComp. Eng.: Intro to Machine Learn	SYSC 4415	0.50	CUR								
SysComp. Eng.: Communications Softwa	SYSC 4502	0.50	CUR								
SysComp. Eng.: Web Development	SYSC 4504	0.50	CUR								
SysComp. Eng.: Engineering Project	SYSC 4907	1.00	CUR								

Student Scholarships

2018 Carleton University Entrance Scholarship
2019 J. Lorne Gray Scholarship
2019 Deans' Honour List
2020 Eric Sigurdson Award
2020 Deans' Honour List
2021 Eric Sigurdson Award
2021 Deans' Honour List

************* End of transcript *************   ref:WP4-1080863-1

CARLETON UNIVERSITY

Explanation of Grading Symbols

Standing in courses will be shown by alphabetical grades, which carry grade point values as follows:

A+	12	B+	9	C+	6	D+	3	F	0
A	11	B	8	C	5	D	2		
A-	10	B-	7	C-	4	D-	1		

Grade points indicated above are for courses of one (1.0) credit in value (See Credit Value Definition). Where the course credit is greater or less than one credit, the grade points are adjusted proportionately.

The following percentage equivalents apply to all final grades as follows:

A+ 90-100% B+ 77-79% C+ 67-69% D+ 57-59% F 0-49%
A 85-89%   B 73-76% C 63-66% D 53-56%
A- 80-84%   B- 70-72% C- 60-62% D- 50-52%

The following grades and notations may appear on the transcript:

ABS	Absent
AEG	Aegrotat
AUD	Audit
CEX	Current International Exchange
CH	Successful Challenge for Credit
CLP	Current Letter of Permission
CTN	Continuing (Assigned to first half of a course taught over two consecutive terms)
CUO	Current University of Ottawa Exchange
CUR	Currently Enrolled
DEF	Deferred
EXC	Successful International Exchange Credit
F	Failure
FND	Failure with no deferred examination allowed
FNS	Failure with no supplemental privileges
FWS	Failure with supplemental privileges
GNA	Grade not available
INC	Incomplete
IP/INP	In Progress
LOP	Successful Letter of Permission
P	Pass
PWD	Pass With Distinction
S/SAT	Satisfactory
UCH	Unsuccessful Challenge for Credit
U/UNS	Unsatisfactory
WDN	Withdrawn after full fee adjustment date

Credit Value Definition

The basic unit of academic work is the "full credit" with a credit value of 1. 0. During the Fall Term and Winter Term, a course which spans both terms normally represents three class contact hours or equivalent per week plus laboratory and/or supplementary instruction as required. Each term contains twelve weeks of instruction. Courses offered during the Summer Term have equivalent workloads but are concentrated into a shorter period of time.

It is suggested that a course with a credit value of 1.0 is equivalent to six semester hours per week or nine-quarter hours. It should be noted, however, that courses with laboratory components could yield the equivalent of eight semester hours or twelve-quarter hours.

Course Numbering System
Effective Fall 2002 the University implemented a new course numbering system. Transcripts began to reflect this new numbering system in the Summer Term of 2003 when a new student information system was implemented. Course numbering examples are as follows:

Prior to Summer 2003	Effective Summer 2003
English 18.105	ENGL 1005

Graduation: Degrees, Diplomas and Certificates are awarded three times a year
Spring (June), Fall (November), Winter (February)

The Academic Year:
Summer Term: May - August
Fall Term: September - December
Winter Term: January- April

Awards/Scholarships:
Carleton awards and scholarships are noted on the transcript.

Course Set Aside

Three categories of courses that do not contribute to the fulfillment of graduation requirements may appear on the student's transcript:
Extra to the Degree (ETD): Passed credits that could have counted towards the degree but are in excess of the credits required for graduation.
No Credit for Degree (NCD): Passed credits that are ineligible for credit in the student's program.
Credit Forfeited: Courses that cannot be used for credit in the current or any subsequent program.

With Study Abroad: Undergraduate Students who have successfully completed 2.0 to 3.5 credits at a non-Canadian university in an approved pattern under a recognized International Exchange program.

With Study Year Abroad: Undergraduate Students who have successfully completed 4.0 or more credits at a non-Canadian university in an approved pattern under a recognized International Exchange program.

Accreditation: Carleton University, a founding member of the Council of Ontario Universities, enjoys full accreditation by the Ministry of Training, Colleges and Universities of the Province of Ontario. It is a charter member of the Association of Universities and Colleges of Canada; a member of the Association of Commonwealth Universities and participates fully in the Commonwealth Scholarship and Fellowship Plan; and is a member of the International Association of Universities. For specific degree accreditation information, please consult the following Carleton University website: http://calendar.carleton.ca /accreditation

Transcript Validation: Questions regarding the content or validity of this document should be directed to the Registrar's Office at (613) 520-3500.

Note that the language of instruction at Carleton University is English.