THE GEORGIA INSTITUTE OF TECHNOLOGY

GEORGIA INSTITUTE OF TECHNOLOGY A UNIT OF THE UNIVERSITY SYSTEM OF GEORGIA OFFICE OF THE REGISTRAR - ATLANTA, GEORGIA 30332-0315

OFFICIAL DOCUMENT

| NStudent No: 903-45-8028CHNOLOGY THE GEORGIA | of Birth: 24-MAY-1996 TECHNOLOGY | Date Issued: 05-OCT-2022 |
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| NSTITUTE OF TECHNOLOGY • THE GEORGIA Record of: Hongyi Chen TECHNOLOGY • THE GEORGIA INSTITUTE OF THE GEORGIA INSTITUTE OF TECHNOLOGY • | INSTITUTE OF TECHNOLOGY TECHNOLOGY • THE GEORG TSUBJ NO. CRGIA NOURSE TITLE OF | • THE GEORGIA IN IA INSTITUTE OF TI CRED GRD PTS R • T |
| Current Program STTTLTF OF TECHNOLOGY THE | Institution Information continued: Summer 2020 | HNOLOGY • THE G |
| SUBJ NO. C COURSE TITLE RG CRED GRD PTS R | Computer Science CS 6601 O Artificial Intelligence CS 7638 O Robotics: AI Techniques | 3.00 A 12.00 3.00 A 12.00 |
| THE GEORGIA INSTITUTE OF TECHNOLOGY GEORGIA INSTITUTE OF TECHNOLOGY | Term: Ehrs: 6.00 GPA-Hrs: 6.00 Pts: Spring 2021 | 1 24.00 GPA: 4.00 Y THE G |
| Fall 2018 Computer Science CS 6200 O Graduate Intro to OS 3.00 A 12.00 CS 6250 O Computer Networks 3.00 A 12.00 Term: Ehrs: 6.00 GPA-Hrs: 6.00 Pts: 24.00 GPA: 4.00 | Computer Science CS 6476 O Computer Vision Term: Ehrs: 3.00 GPA-Hrs: 3.00 Pts: Fall 2021 | 3.00 A G 12.00 G A N A 12.00 GPA: 4.00 F TECHNOLOGY • TE |
| Spring 2019 Computer Science CS 6210 O Adv Operating Systems 3.00 A 12.00 CS 6290 O High Perform Comput Arch 3.00 A 12.00 | Robotics CS 7648 A Interactive Robo Learn ECE 6550 A Linear Sys and Controls ECE 6563 A Networked Control ECE 7741 A Robotics Pro Prep 1 | 3.00 A 12.00 HE G 3.00 A 12.00 HA N 3.00 A 12.00 HA N 12.00 HA N |
| Term: Ehrs: 6.00 GPA-Hrs: 6.00 Pts: 24.00 GPA: 4.00 Summer 2019 Computer Science | ME 8943 A Special Prob-Automation Term: Ehrs: 13.00 GPA-Hrs: 13.00 Pts: Spring 2022 | 3.00 A 12.00 |
| CS 6291 O Embedded Software Opt. 3.00 W 0.00 CS 8803 O Special Topics 3.00 A 12.00 Compilers- Theory & Practice Term: Ehrs: 3.00 GPA-Hrs: 3.00 Pts: 12.00 GPA: 4.00 | Robotics CS 7634 A AI Storytell In Vir Wrld CS 7785 A Intro Robotics Research ECE 7742 A Robo Pro Prep 2 ECE 8900 A Special Problems | 3.00 W 0.00 3.00 A 112.00 OF 11 1.00 A 4.00 9.00 S 0.00 |
| Fall 2019 Computer Science CS 6265 O Information Security Lab 3.00 W 0.00 CS 6340 O Software Analysis & Test 3.00 W 0.00 | Term: Ehrs: 13.00 GPA-Hrs: 4.00 Pts: Summer 2022 Robotics | |
| CS 6340 O Software Analysis & Test 3.00 W 0.00 Term: Ehrs: 0.00 GPA-Hrs: 0.00 Pts: 0.00 GPA: 0.00 ********************************** | ************************************** | 2 ************************************ |
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Student No: 903-45-8028 Date of Birth: 24-MAY-1996 Date Issued: 05-OCT-2022 AEEE Record of: Hongyi Chen Page: 2 BEGIN GRADUATE SEMESTER TOTALS Earned Hrs GPA Hrs Points GPA TOTAL INSTITUTION 50.00 41.00 164.00 4.00 TOTAL TRANSFER 0.00 0.00 0.00 0.00 OVERALL 50.00 41.00 164.00 4.00 REGENTS 50.00 41.00 164.00 4.00 ACADEMIC STANDING Good Standing ****** SEMESTER TOTALS ****** END OF TRANSCRIPT Current Schedule: Fall 2022 CS 8803 A Special Topics 3.00 IN PROGRESS CS 8903 A Special Problems 9.00 IN PROGRESS 1.00 IN PROGRESS ECE 7743 A Robo Pro Prep 3 8741 A Robo Capstone Project 3.00 IN PROGRESS ECE Hours: 16.00 ***** END OF RECORD *** PROGRESS SERVIC

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GEORGIA INSTITUTE OF TECHNOLOGY OFFICIAL DOCUMENT INFORMATION

ACCREDITATION

The Georgia Institute of Technology is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, and doctoral degrees. Inquiries to the Southern Association of Colleges and Schools (SACS) should be forwarded to Southern Association of Colleges and Schools. 1866 Southern Lane. Decatur. Georgia 30033-4097, phone (404)679-4500. The Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050. Baltimore. MD 21202-4012 - phone: (410)347-7700, has accredited engineering B.S. degrees in Aerospace, Biomedical, Chemical and Biomolecular, Civil, Computer, Electrical, Industrial, Materials Science, Mechanical, Nuclear and Radiological. Polymer and Fiber, and two engineering B.S. degrees offered through the Regional Engineering Program: Civil and Computer. Not currently accredited are the B.S. in Environmental Engineering and three engineering BS degrees offered through the Regional Engineering Program: Electrical, Mechanical, and Environmental. The American Chemical Society has accredited the BS. degree in Chemistry: the Human Factors and Ergonomics Society has accredited the Ph.D. in Engineering Psychology: the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the National Commission on Orthotic and Prosthetic Education (NCOPE) has accredited the M.S. Degree m Prosthetics and Orthotics (MSPO). The B.S. in Computer Science program is accredited by the Computing Accreditation Commission (CAC) of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - phone (410) 347-7700. The College or Management and all or its degrees are fully accredited by the Association to Advance Collegiate Schools of Business. The National Architectural Board has accredited the Master of Architecture; the American Council for Construction Education has accredited the BS. in Building Construction the M.S. in Building Construction und Integrated Facility Management is recognized by the International Facility Management Association (IFMA) and the Design Build Institute of America (DBIA). The Planning Accreditation Board has accredited the Master of City and Regional Planning: the BS.in Industrial Design has been accredited by the National Association of Schools in Art and Design (NASAD) and is recognized by the Industrial Designers Society of America. Extended version may be viewed at http://catalog.gatech.edu/about/accreditation/

CALENDAR

Prior to July 1, 1948, the Georgia Institute of Technology was known as the Georgia School of Technology. From September, 1946, through Summer Term, 1999, the Institute was on the quarter system. Effective Fall Term, 1999, all curricula are based upon a semester calendar with three terms per calendar year. 'For academic calendar information please visit. https://registrar.gatech.edu/calendar

CONTACT INFORMATION

Office of the Registrar. Georgia Institute of Technology, Atlanta, GA 30332-0315, 404-894-4150 (voice) 404-894-0I67 (fax). comments@registrar.gatech.edu, or http://www.registrar.gatech.edu

COURSE NUMBERING SYSTEM

Course numbers below 1000 denote remedial courses and may not be used in satisfying degree requirements. Course numbers below 3000 denote lower division (freshman and sophomore) courses. Those numbered 3000-4999 denote upper division (junior and senior) courses. Courses designed for graduate students are numbered 6000 and above.

GRADING SYSTEM

Effective September 17, 1973

| Grade | Definition | Quality Points Per Credit Hour |
|-------|--|-----------------------------------|
| A | Excellent | 4 |
| В | Good | 3 |
| C | Satisfactory | 2 |
| D | Passing | 1 |
| F | Failure | 0 |
| S | Satisfactory completion of a course taken under pass/fail, or of a course in which no other letter grade may be assigned | 0 |
| U | Unsatisfactory completion of a course taken under pass/fail, or of a course in which no other letter grade may be assigned | 0 |
| V | Audit (no academic achievement implied) | 0 |
| I | Incomplete | 0 |
| W | Withdrew | 0 |
| NR | Not Reported. Assigned when an instructor fails to submit grades by the published deadline, through no fault of the student | 0 |

GRADE POINT AVERAGE

The scholastic average is computed by dividing the quality points earned by the number of credit hours scheduled in which a final grade of A. B. C. D or F has been recorded. In the case of repeated courses, all grades earned are calculated into the grade point average with the exception of those changed via grade substitution (see below). The Institution grade point average displayed will take Substituted grades into consideration. The Regents grade point average displayed will be a calculation of all grades. Prior to Fall Term. 1999, all instances of an individual course. including those associated with repeated and remedial courses, were counted in the total number of earned hours. Effective Fall Term 1999, earned hours from repeated courses and remedial courses (those numbered below 1000) will not be included in the earned hours total.

GRADE SUBSTITUTION

Beginning with first-time freshmen entering Fall 2005 through Spring 2019, students may request a grade substitution for no more than two courses taken in the first two semesters where the grade is "D" or "F". The original grade will not be included in the computation of the grade point average but will appear on the transcript. Effective Summer 2019, undergraduate students may repeat courses for grade substitution according to the criteria established at http://catalog.gatech.edu/policies/grading-gpa/grade-substitution/

ANTICIPATED GRADUATION DATE

Anticipated graduation dates are calculated for all students based on the average number of terms required to complete degree requirements with the assumption that the student will enroll as a full-time student each term (including summer term). The anticipated graduation date should not be viewed as a guarantee of graduation.

Graduation is based on hours, courses and scholastic average only; no prescribed time is set

ACADEMIC STANDING

GOOD

Student is not on academic wanting « probation; is maintaining satisfactory academic progress.

WARNING

A sub-set of GOOD. Student's most recent academic performance has been unsatisfactory or the overall average is below the minimum requirement.

PROBATION

Student's most recent academic performance has been extremely unsatisfactory or the overall academic average has continued to be below the minimum requirement.

REVIEW

Student who normally would be dropped from the rolls due to academic deficiencies but appears from the record not to have completed the term. Student cannot he enrolled on Review status.

DROP/DISMISSAL

Student has been dropped from the rolls due lo academic deficiencies.

DEANS LIST FACULTY HONORS

Term honors for undergraduate students on GOOD academic standing. Deans List- 3.0 grade point average for term with no incomplete grades and a full load taken on letter grade basis Faculty Honors - 4.0 grade point average for term with no incomplete grade or Withdrawals and a full load taken on letter grade basis.

TRANSFER CREDIT

In general, a grade of "C" or better is required before transfer credit is awarded. Courses transferred from another institution are recorded as the equivalent Georgia Tech courses and the grades are not recorded

TRANSCRIPT LEGEND

| SUBJ | = | Subject | |
|------|---|---------------|--|
| NO | = | Course Number | |

Campus (A =Atlanta Campus, O = Online)

Full listing at https://registrar.gatech.edu/info/campus-

TITLE Course Title CRED Credit Hours GRD PTS Quality Points R

Indicates course has been repealed.

Repeat column codes:

E = Excluded from earned hours and GPA

Included in earned hours and GPA

A = Included in GPA, but not in earned hours

Birth Date/Month: 24-May

142.0

PGH PENNSYLVAN

Date Awarded Degree Awarded

36.0

May 23, 2021 Master of Science in Electrical and Computer Engineering

| | В | eginning of Graduate Record | | | |
|-------------|-------|-----------------------------|----------|----------------|-------------------|
| Spring 2020 | | | | | |
| DPT | CRS# | COURSE TITLE | UNITS | FINAL GRADE | QUALITY POINTS |
| INI | 14736 | DIST SYSTMS:TEC INF | 12.0 | Α | 48.0 |
| ISR | 17683 | DATA STRCR APPL PRGM | 6.0 | Α | 24.0 |
| ECE | 18349 | INTRO EMBEDDED SYS | 12.0 | Α | 48.0 |
| ECE | 18989 | INTRO GRAD STUDIES | 1.0 | N | 0.0 |
| ISM | 95881 | WEB APP DEV | 6.0 | A- | 22.0 |
| | | UNITS | UNITS | FINAL | TOTAL |
| | | PASSED | FACTORED | QPA | POINTS |
| Semest | er | 36.0 | 36.0 | 3.95 | 142.0 |

36.0

3.95

Cumulative Fall 2020

| DPT | CRS# | COURSE TITLE | UNITS | FINAL GRADE | QUALITY POINTS |
|--------|--------|----------------------|----------|----------------|-------------------|
| DFI | CINO# | COUNSE TITLE | UNITS | GIVADL | FOINTS |
| MLG | 10703 | DEEP RL & CONTROL | 12.0 | B+ | 40.0 |
| ROB | 16867 | HUMAN ROBOT INTRACTN | 12.0 | A- | 44.0 |
| ECE | 18980 | MS GRADUATE PROJECT | 12.0 | A- | 44.0 |
| ECE | 18989 | INTRO GRAD STUDIES | 1.0 | S | 0.0 |
| MEG | 24451 | FEEDBK CNTRL SYSTEMS | 12.0 | Α | 48.0 |
| | | UNITS | UNITS | FINAL | TOTAL |
| | | PASSED | FACTORED | QPA | POINTS |
| Semes | ter | 49.0 | 48.0 | 3.67 | 176.0 |
| Cumula | ative | 85.0 | 84.0 | 3.79 | 318.1 |
| | | | | / -> // | |
| Spring | 2021 | | | | |
| Opriii | , 2021 | | | | |

Spring 2021

| Cumula | ative | 121.0 | 120.0 | 3.72 | 446.1 |
|--------|-------|-------------------------|----------------------------------|-----------------------------|--------------------------|
| Semes | ter | UNITS PASSED 36.0 | UNITS FACTORED 36.0 | FINAL QPA 3.56 | TOTAL POINTS 128.0 |
| ECE | 18786 | INTRO DEEP LRNG | 12.0 | A- | 44.0 |
| ROB | 16883 | SAFE ROBOTICS | 12.0 | Α | 48.0 |
| ROB | 16311 | INTRO TO ROBOTICS | 12.0 | В | 36.0 |
| DPT | CRS# | COURSE TITLE | UNITS | FINAL GRADE | QUALITY POINTS |

End of Graduate Record



Carnegie Mellon University

Transcript Information

This information is also available at:

dent-records/transcripts/legend.html

Contact Information

Please direct all questions to The University Registrar's Office:

Carnegie Mellon University Phone: 412-268-4138 University Registrar's Office 5000 Forbes Avenue Fax:412-268-6651

Email:uro-transcrtipts@andrew.cmu.edu Pittsburgh, PA 15213-3890 Website: http://www.cmu.edu/hub

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Carnegie Mellon University is an accredited member of the Middle States Commission on Higher Education, 3624 Market St., Philadelphia, PA 19104.

College and department accreditations include:

- Accreditation Board for Engineering Technology (ABET) Chemical Engineering, Civil Engineering, Electrical and Computer Engineering, Éngineering and Public Policy, Mechanical Engineering, and Materials Science and Engineering
- National Architectural Accrediting Board (NAAB) Architecture
- National Association of Schools of Art and Design (NASAD) Art and Design
- National Association of Schools of Music (NASM) Music American Assembly of Collegiate Schools of Business (AACSB) and Middle Atlantic Association of College of Business Administration (MAACBA) - David A. Tepper School of Business; American Chemical Society (ACS) – Chemistry
 National Association of Schools of Public Affairs and Administration (NAPAA) – H. John Heinz

Language of Instruction

All Carnegie Mellon University courses are taught in English.

Teaching Location

This transcript reflects all Carnegie Mellon coursework, independent of campus or teaching

Carnegie Mellon observes the semester system with two six-week summer sessions. Courses may be taught in other shortened sessions.

Course Numbers

Each Carnegie Mellon University course number begins with a two-digit prefix which designates the department offering the course (76-xxx courses are offered by the Department of English, etc.) Although each department maintains its own course numbering practices, typically the first digit after the prefix indicates the class level: xx-1xx courses are freshmen-level, xx-2xx courses are sophomore level, etc. xx-6xx courses may be either undergraduate senior-level or graduate-level, depending on the department. Xx-7xx courses and higher are graduate-level.

Degree Requirements

Degrees are awarded upon satisfactory completion of residence requirements, all requirements in the approved curriculum(a) and by recommendation for degree(s) by the faculty of the appropriate college(s).

Units of Work vs. Credit Hours

Three units equal one semester hour of credit.

Quality Point Average (QPA) Calculations
Carnegie Mellon University defines a quality point as a point value times units for a given course. QPAs are calculated according to the following formula

Semester QPA: quality points divided by factorable units.

Cumulative QPA: total quality points divided by total factorable units.

Undergraduate courses may not be factorable into the QPA for graduate students, depending on the student's college.

Units Carried vs. Passed vs. Factored

Units Carried refers to the total number of units for which the student is registered.

Units Passed is the total of all units that have a passing grade. Grades of 'R', 'N', and 'I' are not

Units Factored is the total of all units factored into QPA. See Grading Standards for grades not factorable into QPA. Undergraduate courses are not factorable into QPA for graduate students.

A separate cumulative QPA is calculated for undergraduate and graduate records. If a student attends for a combination of undergraduate, graduate studies, and/or non-degree studies, a cumulative QPA may not be calculated.

Cumulative QPA may not be available on transcripts for semesters prior to 1989.

4.0 Grading Standards

Undergraduate students (and graduate students in CFA, CIT, CMU, MCS, and SCS who entered before Fall 1995):

| Grade | Point Value | Description |
|-------|----------------|-----------------------------|
| A | 4.0 | Excellent |
| В | 3.0 | Good |
| C | 2.0 | Satisfactory |
| D | 1.0 | Passing |
| R | 0.0 | Failure |
| X | 0.0 | Conditional Failure |
| S | non-factorable | Satisfactory |
| P | non-factorable | Passing |
| N | non-factorable | Failure in Pass/Fail Course |
| 0 | non-factorable | Audit |
| W | non-factorable | Withdrawal |
| I | non-factorable | Incomplete |
| AD | non-factorable | Credit by examination |
| TR | non-factorable | Transfer credit |

4+ Grading Standards / 9.0 Grading Standards

The 4+ grading scale is applicable to graduate students who entered in and after Fall 1995. The 9.0 grading scale is applicable only to certain graduate students who entered before Fall 1995: Students in the Graduate School of Industrial Administration (GSIA, now Tepper School of Business (TSB)), the School of Urban and Public Affairs (SUPA, now Heinz College (HC)), and graduate students who were admitted to the College of Humanities and Social Sciences (H&SS, now Dietrich College (DC)) after August 1986.

| Grade | Point Value (4+) | Point Value (9.0) | Description |
|--------|------------------|-------------------|-----------------------------|
| A+ * | 4.33 | 9 | |
| Α | 4.00 | 8 | |
| A- | 3.66 | 7 | |
| B+ | 3.33 | 6 | |
| В | 3.00 | 5 | |
| B- | 2.67 | 4 | |
| C+ | 2.33 | 3 | |
| С | 2.00 | 2 | |
| C- | 1.67 | 1 | |
| D+ * | 1.33 | - | |
| D * | 1.0 | 0 | |
| R | 0.0 | 0 | Failure |
| Χ | 0.0 | - | Conditional Failure |
| S P | non-factorable | non-factorable | Satisfactory |
| | non-factorable | non-factorable | Passing |
| N | non-factorable | - | Failure in Pass/Fail Course |
| 0 | non-factorable | - | Audit |
| W | non-factorable | - | Withdrawal |
| I | non-factorable | - | Incomplete |
| AD | non-factorable | - | Credit by examination |
| TR | non-factorable | - | Transfer credit |

* DC and CIT graduate students are not permitted to receive an A+. TSB and HC graduate students do not receive D or D+ grades.

After the mid-point of the spring 2020 semester, a global pandemic caused a significant disruption that warranted temporary changes to our grading policy. These changes offered broader use of our Pass/No Pass (P/NP) grading option and the acceptance of passing grades to fulfill degree requirements.

Grading Scale & QPA Conversion

We are unable to provide conversion to other grading scales, such as percentage. A guide to our grading scale is provided on the back of all official transcripts. While we do provide overall semester QPA and cumulative QPA, we are unable to provide an "in-major" QPA (i.e. QPA for courses only in your major).

Physical Education Courses

Physical Education Courses are considered Units Passed in the student's overall semester and cumulative QPA; they are not considered Units Factorable and are not used in calculating the student's overall semester QPA, rank in class or for academic actions.

Carnegie Mellon University does not discriminate in admission, employment, or administration of its programs or activities on the basis of race, color, national origin, sex, handicap or disability, age, sexual orientation, gender identity, religion, creed, ancestry, belief, veteran status, or genetic information. Furthermore, Carnegie Mellon University does not discriminate and is required not to discriminate in violation of federal, state, or local laws or executive orders.

Inquiries concerning the application of and compliance with this statement should be directed to the Vice President for Campus Affairs, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-2056.

Obtain general information about Carnegie Mellon University by calling 412-268-2000.

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