Bradley Beth

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Education

- *Ph.D., Computer Science*, The University of Texas at Austin, *incomplete*
- *M.S., Computer Science*, The University of Texas at Austin, 2016
- *B.S., Computer Sciences*, The University of Texas at Austin, 2003

  Texas Educator Certificate: Secondary Computer Information Systems, Secondary Mathematics, UTeach
- *B.A., Linguistics*, The University of Texas at Austin, 1997
- University of Chicago, 1992–1994

Employment

- Vermont State University[1]
  Department of Computer Science, Mathematics, and Statistics (08/2019–)

  Assistant Professor, *Computer Science*
  Support students through teaching computer science courses for both majors and non-majors and serving as advisor to students majoring in the Computer Information Systems and Data Science programs.
  Courses Taught:
  - CIS 1050 *Computer Operating Systems and Spreadsheets*
  - CIS 1060 *Introduction to Databases*
  - CIS 1065 *Introduction to Programming Logic*
  - CIS 1090 *Problem Solving with Computers*
  - CIS 1151 *Website Development*
  - CIS 1152 *Advanced Website Development*
  - CIS 2101 *Introduction to Unix*
  - CIS 2141 *Programming Internet and Web Applications I*
  - CIS 2261 *Introduction to Java Programming I*
  - CIS 2262 *Introduction to Java Programming II*
  - CIS 2271 *Java Programming*
  - CIS 2279 *Introduction to Perl Programming*
  - CIS 2290 *Introduction to Python*
  - CIS 2320 *Software Quality Assurance & Testing*
  - CIS 2330 *Database Systems*
  - CIS 2990 *Portfolio*
  - CIS 3010 *Database Systems*
  - CIS 3025 *Object-Oriented Design*
  - CIS 3050 *Algorithms and Data Structures*

[1] Formerly Northern Vermont University, which merged with Castleton University and Vermont Technical College to form Vermont State University in July 2023.

  - CIS 3120 *Programming Internet and Web Applications II*
  - CIS 3240 *Computer Security*
  - CIS 3430 *Data Science I*
  - CIS 3810 *Cooperative Field Work*
  - CIS 4120 *Systems Analysis and Design*
  - CIS 4330 *Advanced Networking*
  - CIS 4440 *Data Science II*
  - CIS 4520 *Advanced Software Technologies*
  - CIS 4810 *Internship in Computer Science*
  - CIS 4950 *CIS Capstone*
  - MAT 2210 *Sets, Logic, and Proof*

  Co-developed a Data Science baccalaureate degree program for undergraduates and a companion Data Analytics Boot Camp for professionals.

  Program Coordinator, *Computer Information Systems and Data Science* (08/2023–)
  Administered course scheduling and program documentation for the Computer Information Systems and Data Science programs.

- Northern Vermont University
  Department of Mathematics and Computer Science (08/2018–05/2019)

  Part-time Faculty, *Computer Science*
  Taught computer science courses for both majors and non-majors.
  Courses Taught:
  - CIS 2271 *Java Programming*
  - CIS 2290 *Introduction to Python*
  - CIS 3050 *Algorithms and Data Structures*
  - CIS 3710 *Advanced Object-Oriented Problem Solving*

- Bradley Beth Consulting (11/2021–)

  Consultant, *Analytics Services*
  Create and maintain automated data collection, analysis, and reporting tools. Conduct custom data analyses for institutions of higher learning.

- Vermont Mathematics Initiative (2023–2024)

  Instructor
  Co-designed and delivered professional development courses for K–12 teachers as part of the VMI Post-Masters Certificate program, for graduate credit through articulation with Vermont State University.
  - *Discrete Mathematics* (2023),
  - *Systems of Equations for All Students* (2024)

- Educational Testing Service (2020–2021, 2023–2024)

  AP Reader
  Scored Free Response Questions for the Advanced Placement Computer Science A examination.

- Southern New Hampshire University (01/2022–03/2022)

  Instructor
  Facilitated the course IT-230: *Software Development with C#.NET*.

- EDUCAUSE (06/2017–08/2019)

  Data Analytics Developer, *Core Data Service*

Supported institutional data analysis for thousands of Institutions of Higher Learning. Created and maintained automated data collection tools from a variety of sources (PHP, Python), cleaned and stored data (R, MS SQL Server), and created reporting and visualization objects (QlikSense). Conducted data analysis and statistical support for research using Python and a variety of statistical packages.

– The University of Texas at Austin
The UTeach Institute (06/2016–06/2017)

Curriculum Specialist, *UTeach Computer Science*
Developed curricula for a new Advanced Placement Computer Science Principles course, *UTeach CSP*, as part of a four-course pathway for high school computer science. Co-developed professional development for the new courses. Developed CS activities/lessons for integration into the national UTeach undergraduate curriculum for secondary STEM teacher preparation.

– The University of Texas at Austin
Department of Computer Science (12/2015–05/2016)

Graduate Research Assistant
Developed research code to investigate modeling hyperelastic deformations in thin shells, using both C++ and Simit, a novel language for modeling physical simulations.

– The University of Texas at Austin
Department of Computer Science (08/2015–12/2015)

Teaching Assistant
Led two discussion sections and coordinated student programming projects and grading for a Java-based data structures course offered to students in the UTCS Turing Scholars honors program.

– The University of Texas at Austin
Department of Computer Science (09/2011–08/2015)

Senior Program Coordinator, *Project Engage!*
Co-developed the *Thriving in Our Digital World* curriculum for a novel dual enrollment blended learning course in computer science through funding from NSF Computing Education for the 21st Century (Award# CNS-1138506). This course is intended to interest all students in computing through a diverse, topics-oriented curriculum. It is aligned with both the *Computer Science: Principles* framework and the *Texas College and Career Readiness Standards*. Additionally, the content is delivered through a combination of classroom and distance education models, with emphasis on student collaboration fostered through social networking tools.
Led development of a rubric-scoring tool to verify open-ended project assessments through the application of Machine Learning techniques. This work augments the *Thriving in Our Digital World* course to address scale, funded by the NSF Division of Research on Learning in Formal and Informal Settings (Award# DRL-1441009).

– The University of Texas at Austin
Department of Computer Science (03/2010–09/2011)

Program Coordinator, *UTeach—Computer Science*
Coordinated restructuring of UTeach teacher preparation program through an NSF Broadening Participation in Computing grant funded position (Award# BPC-DP-0959827). Responsibilities included recruiting and managing retention of pre-service of teachers, reviewing relevant literature, drafting proposals and presentations, developing curricular supplements for pre-service computer science teacher preparation, revising degree plans, coordinating and communicating initiatives among interested parties (e.g., College of Natural Sciences, Dana Center, NSF, UTeach Institute).

– The University of Texas at Austin
Cockrell School of Engineering (09/2009–03/2010)

Research Engineering/Scientist Assistant, *UTeachEngineering*
Reviewed, edited, and generated lesson and lab content for a model teacher certification program and an NSF-supported national engineering curriculum.

– Dallas Independent School District
School of Science and Engineering (09/2005–08/2008)

Teacher, *AP Computer Science*
Taught 7 sections of AP Computer Science A and AB, preparing students for the AP Exam for first- and second-semester college credit in Java Object-Oriented Programming and Data Structures. Responsibilities beyond teaching included curriculum development, coaching the competitive programming team, sponsoring the student organization Design of Entertainment Software Applications, school performance data management, and internal software design.

– Dallas Independent School District
Henry W. Longfellow Career Exploration Academy (09/2004–08/2005)

Teacher, *Talented and Gifted Interdisciplinary Seminar*
Co-designed and taught middle school (7th- and 8th-grade) project-based interdisciplinary curriculum integrating core subjects and information technology culminating in a student-designed project. Served as campus gifted and talented coordinator, maintaining all necessary documentation of gifted and talented requirements in compliance with Texas state law. Designed and taught a professional development seminar entitled "Critical Thinking in Mathematics for Gifted Learners".

– Austin Independent School District
William B. Travis High School (09/2003–08/2004)

Teacher, *Mathematics*
Taught high school mathematics (Algebra I, Algebra I Pre-AP, Mathematics Technology Laboratory Course) at a Title I eligible school in Austin, TX. Served as mentor to designated "at-risk" students.

– The University of Texas at Austin
Master Teacher Summer Institutes (Summers 2002, 2003)

Student Technician
Designed and taught instructional technology classes to master teachers prior to summer institute. Assisted teachers in integrating technology into their curricula through basic web design, spreadsheet use for data collection and organization, and mathematics- and science-specific software for student laboratory use. Designed a multimedia CD-ROM using HTML and Macromedia Flash to advertise program to potential donors and financial sponsors. Facilitated communication among former participants through email listserv and Internet Relay Chat.

– The University of Texas at Austin
Center for Space Research (08/2000–03/2002)

Senior Student Associate
Worked with the Technology department to administer and maintain various computing resources on a vast variety of platforms. Responsibilities included creating and maintaining automation scripts (Perl) and maintaining a logical map of all networked resources.

– IntelliQuest, Inc. (06/2000–08/2000)

Analyst

Developed online surveys to track consumer satisfaction with client firms using Quancept CATI and Quancept Web for data collection and P-STAT for data reporting.

– CompuTrac, Inc. (06/1997–06/2000)

Software Systems Engineer
Developed and maintained code for Law Firm Management Software, a time and billing system for large legal firms. Worked with production code as well as custom modules requested by clients. Participated in all aspects of the software development cycle, including interfacing directly with clients, determining level of effort, writing and testing code, documenting solutions for both maintenance and end-users, and installing and maintaining software for clients. Most code written for HP/3000 and HP/9000 platforms using MPE/iX and HP-UX operating systems, HP Pascal, and Turbo Image/3000 and Informix/SQL database packages.

Collaboration

– Advisor to the *Training Arkansas Computing Teachers (TACT)* project (NSF Award# 1543195) and the Arkansas Department of Education for developing K–12 Computer Science standards and teacher certification competencies. Lead implementation of curriculum and professional development for *Computer Science Principles*. (2015–2018)

– Contributing Partner for Teach Global Impact as established by the *SInRGI: A Shared, Integrated Resource for 'Global Impact'* project (NSF Award# 1637601) (2016–2017)

– Advisor to Edhesive.com for the creation of the Edhesive AP Computer Science Principles course, based on *UTeach CS Principles* (2016–2017) **[Link]**

– Member of the *UTeach Computer Science National Working Group* (2016–2017)

– Representing Partner for the *Thriving in Our Digital World* and *UTeach CS Principles* curricula to *AccessCS10K: Including Students with Disabilities in Computing Education for the Twenty-First Century* (NSF Award# 1440843, 1440878) (2014–2017) **[Link]**

– Contributing Partner for the *Expanding the Reach of AP CSP Curricula* EAGER project (NSF Award# 1547051) (2015–2016)

– Content contributor for *CS Teaching Tips*, funded by NSF project *Import PCK: What 10K Novice Teachers Can Learn from Teachers with 10K Hours of Experience* (Award# 1339404) (2015) **[Link]**

– Member of the *Texas Computer Science Task Force: Strategic Leadership for Building a CS Pipeline*, a collaborative effort among education, government, non-profit, and commercial interests to draft CS education policy recommendations for state and national stakeholders (2014) **[Link]**

– Advisor to the *Computer Science Field Guide* (2012–2013) **[Link]**

Publications and Presentations

Refereed Articles

[1] George Veletsianos, **Bradley Beth**, Calvin Lin, and Gregory Russell. Design Principles for Thriving in Our Digital World, a High School Computer Science Course. *Journal of Educational Computing Research*, 54:443–461, July 2016. **[Link, PDF]**

[2] **Bradley Beth**, Calvin Lin, and George Veletsianos. Training a diverse computer science teacher population. *ACM Inroads*, 6(4):94–97, November 2015. **[Link, PDF]**

Refereed Conference Papers

[3] George Veletsianos, **Bradley Beth**, and Calvin Lin. CS Teacher Experiences with Educational Technology, Problem-Based Learning, and a CS Principles Curriculum. In *Proceedings of the 47th ACM technical symposium on Computer Science Education*, SIGCSE '16. ACM, March 2016. **[Link, PDF]**

[4] Elynn Lee, Victoria Shan, **Bradley Beth**, and Calvin Lin. A Structured Approach to Teaching Recursion Using Cargo-Bot. In *Proceedings of the tenth annual international ACM conference on International computing education research*, ICER '14, pages 59–66, August 2014. **[Link, PDF]**

[5] Joe Tessler, **Bradley Beth**, and Calvin Lin. Using Cargo-Bot to Provide Contextualized Learning of Recursion. In *Proceedings of the ninth annual international ACM conference on International computing education research*, ICER '13, pages 161–168. ACM, August 2013. **[Link, PDF]**

Panels

[6] **Bradley Beth**, Lien Diaz, Ralph Morelli, Cameron Wilson, and Gregg Fleisher. AP CS Principles: Reflections on the First Year. *Infosys CrossRoads 2017*, May 2017. **[Link]**

[7] Jeff Gray, Jennifer Rosato, **Bradley Beth**, and Nigamanth Sridhar. Teaching the Global Impact of Computing. In *Proceedings of the 48th technical symposium on Computer Science Education*, SIGCSE '17, pages 661–662, New York, NY, USA, March 2017. ACM. **[Link, PDF]**

[8] Daniel D. Garcia, Jeff Gray, Ralph Morelli, Owen Astrachan, Calvin Lin, Marie desJardins, Bennett Brown, **Bradley Beth**, and Nigamanth Sridhar. Computer Science Principles Curricula: On-the-Ground, Adoptable, Adaptable, Approaches to Teaching. In *Proceedings of the 46th ACM technical symposium on Computer Science Education*, SIGCSE '15, pages 176–177, Kansas City, MO, March 2015. ACM. **[Link, PDF]**

[9] Owen Astrachan, R. Brook Osborne, Irene Lee, **Bradley Beth**, and Jeff Gray. Diverse Learners, Diverse Courses, Diverse Projects: Learning from Challenges in New Directions. In *Proceedings of the 45th ACM technical symposium on Computer Science Education*, SIGCSE '14, pages 177–178, Atlanta, GA, March 2014. ACM. **[Link, PDF]**

[10] **Bradley Beth**, Irene Lee, and Jane Margolis. Engaging Students with Computer Science Education. *Panel Discussion at SXSWedu 2014*, March 2014.

[11] UTeach. 10th Anniversary Report. *Invited panelist for PBS/Texas Monthly discussion on state of education and the release of the UTeach program 10th anniversary report*, November 2007. **[Link]**

Posters

[12] **Bradley Beth**. Increasing Student Engagement in Computing Ethics. *Poster presented at the 26th ACM Conference on Innovation and Technology in Computer Science Education V. 2 (ITiCSE 2021)*, June 2021. **[Link, PDF (1, 2)]**

[13] Calvin Lin, George Veletsianos, and **Bradley Beth**. Project Engage!, NSF Grants #CNS-1138506 and #DRL-1441009. *Poster presented at the NSF STEM + Computing Partnerships (STEM+C) Community Meeting*, January 2015.

[14] Gregory Russell, George Veletsianos, Calvin Lin, Tara Craig, and **Bradley Beth**. Local Practices and Experiences with Technology Tools Implemented to Support Problem-Based Learning. *Poster presented at the annual meeting of the American Educational Research Association*, April 2014.

[15] Calvin Lin, George Veletsianos, **Bradley Beth**, and Gregory Russell. Project Engage!, NSF Grant# CNS-1138506. *Poster presented at the NSF Computing Education for the 21st Century (CE21) Community Meeting*, January 2014.

[16] George Veletsianos, Tara Craig, **Bradley Beth**, Gregory Russell, and Calvin Lin. A First Iteration of a Pedagogical Model for Teaching Computer Science Through Problems. *Poster presented at the annual meeting of the American Educational Research Association*, April 2013.

[17] Calvin Lin, George Veletsianos, **Bradley Beth**, Gregory Russell, Tara Craig, and Kenneth Turner. Thriving in Our Digital World. *Poster presented at the NSF Computing Education for the 21st Century (CE21) Community Meeting*, January 2013.

[18] George Veletsianos, Gregory Russell, Calvin Lin, and **Bradley Beth**. Innovating Computer Science Education at the High School Level through Technology-Enhanced PBL. *Poster presented at the Association for Educational Communications and Technology (AECT)*, November 2012.

[19] **Bradley Beth**, Calvin Lin, and George Veletsianos. Project Engage!, NSF Grant# CNS-1138506. *Poster presented at the NSF Computing Education for the 21st Century (CE21) Community Meeting*, February 2012.

[20] Calvin Lin and **Bradley Beth**. UTeach Computer Science, NSF Grant# BPC-DP-0959827. *Poster presented at NSF Computing Education for the 21st Century (CE21) Community Meeting*, January 2011.

Edited Articles

[21] **Bradley Beth** and Noureddine Elouazizi. *contrib.* 7 Things You Should Know About Natural Language Processing. *EDUCAUSE Learning Initiative (ELI)*, March 2018. **[Link, PDF]**

[22] **Bradley Beth** and Calvin Lin. Thriving in Our Digital World. *CSTA Voice*, 11(3):2–3, July 2015. **[Link, PDF]**

Invited Talks

[23] **Bradley Beth**. New to NVU. *Convocation address at Northern Vermont University-Lyndon*, August 2019.

[24] **Bradley Beth**. Thriving in Our Digital World: Convolution Matrices with Processing. *Invited talk at the First Bytes Collaborative Workshop for Computer Science Teachers*, June 2015.

[25] Megan Parry and **Bradley Beth**. A Dual Enrollment CS Course from UT Austin *via* OnRamps. *Invited Talk at the Texas Regional Collaboratives Computer Science Network Training, January 15–16, 2015*, January 2015. **[Link]**

[26] **Bradley Beth**. UTeach Computer Science: A Different Approach to Certifying Computer Science Teachers. *Invited talk at the First Bytes Collaborative Workshop for Computer Science Teachers*, July 2010.

Workshops

[27] **Bradley Beth**. Using AI in the Classroom: Possibilities for Educators and Learners. *Workshop for the Vermont Higher Education Collaborative*, April 2024.

[28] **Bradley Beth** and Amy Moreland. UTeach CS Principles: Broadening Participation Through K–12 Computer Science Education and Teacher Professional Learning and Support. In *Proceedings of the technical symposium on Computer Science Education*, SIGCSE '17, pages 733–733, New York, NY, USA, March 2017. ACM. **[Link]**

[29] **Bradley Beth** and Michael DeGraff. UTeach CS Principles: Broadening Participation Through K–12 Computer Science Teacher Professional Learning and Support. *Pre-conference workshop at the tenth annual Texas STEM Conference*, January 2017.

[30] **Bradley Beth**. UTeach CS Principles: Supporting Teachers New to Inquiry-Based Computer Science. *Workshop at the third annual Arkansas Computer Science Education Leadership Summit: D^3: Deleting the Digital Divide*, October 2016.

[31] Jeff Mickel and **Bradley Beth**. K–12 Teacher Support for Computer Science Principles: An Introduction to the UTeach Course, Thriving in Our Digital World: AP. In *Proceedings of the 47th ACM technical symposium on Computer Science Education*, SIGCSE '16, pages 717–718, New York, NY, USA, March 2016. ACM. **[Link]**

[32] Philip Sweany, Nigamanth Sridhar, and **Bradley Beth**. Strengthening Computer Science Education. *Pre-conference workshop at the eighth annual UTeach Conference*, May 2014.

[33] Gregory Russell, **Bradley Beth**, Tara Craig, Calvin Lin, and George Veletsianos. Thriving in Our World—A CS Principles Course. *Workshop at the sixth annual Computer Science Teachers Association Conference (CSTA)*, July 2013.

[34] Mary H. Walker, Jody Bean, **Bradley Beth**, and Jody Hou. Implementing Project-Based Units in Mathematics. *Workshop at the Conference for the Advancement of Mathematics Teaching*, July 2002.

Non-refereed Conferences

[35] **Bradley Beth**. Using Game-Based Learning in Computing Courses. *Presentation at the first annual Vermont State University Academic Excellence Conference*, September 2023.

[36] **Bradley Beth** and Alicia Beth. Integrating Computer Science into Step 1 and Step 2. *Presentation at the tenth annual UTeach Conference*, May 2016.

[37] **Bradley Beth** and Alicia Beth. UTeach CSP: A Project-Based AP Computer Science Principles Course for All High School Teachers and Students. *Presentation at the tenth annual UTeach Conference*, May 2016.

[38] Alicia Beth, **Bradley Beth**, Lee Meadows, John C. Mayer, and Philip Sweany. Integrating Computer Science into the UTeach Curriculum. *Presentation at the ninth annual UTeach Conference*, May 2015.

[39] **Bradley Beth** and Philip Sweany. UTeach and Computer Science Principles: National Initiatives to Reform Introductory Curricula and Broaden Participation from K–12 through University. *Presentation at the ninth annual UTeach Conference*, May 2015.

[40] **Bradley Beth**. Project Engage—Broadening Participation through Dual Enrollment Computer Science Coursework. *Presentation at the International Society for Technology in Education Special Interest Group for Computing Teachers (ISTE/SIGCT)*, June 2013.

[41] **Bradley Beth** and Calvin Lin. UTeach Computer Science: UT Austin as Base Case. *Presentation at the fifth annual UTeach Conference*, May 2011.

[42] **Bradley Beth** and Calvin Lin. Rethinking UTeach and Computer Science. *Paper presented at the fourth annual UTeach Conference*, May 2010. **[PDF]**

Service

- *Vermont State University Teaching Modalities and Pedagogy Committee* (1/2024–)
  - Chair (1/2024–)
- *Vermont State University Professional Development and Scholarship Committee* (1/2024–)
- *Brighton Fire Department*, Brighton, VT (6/2018–)
- *Northern Vermont University Academic Infrastructure Committee* (8/2022–12/2023)
- *Northern Vermont University Academic Status Committee* (8/2020–8/2021, 8/2023–12/2023)
- *Northern Vermont University Structure and Development Committee* (8/2020–12/2023)
- *Brighton School Board*, Brighton, VT (2/2018–3/2024)
  - *Elected, 2 year term* (3/2022–3/2024)
  - *Elected, 2 year term* (3/2020–3/2022)
  - *Elected, 2 year term* (3/2018–3/2020)
  - *Appointed* (2/2018–3/2018)
    - Chair (3/2021–3/2024)
    - Vice Chair (3/2018–3/2021)
    - Voting Member of North Country Supervisory Union School Board (3/2018–3/2021)
    - North Country Supervisory Union Executive Committee (3/2019–3/2021)
    - North Country Supervisory Union Policy Committee (3/2019–3/2021)
- *Northern Vermont University Faculty Assembly Summer Executive Committee* (2021, 2023)
- *Northern Vermont University Center for Teaching and Learning Advisory Board* (8/2021–8/2022)
- *Northern Vermont University Academic Status Committee* (8/2020–8/2022)
- Judge for the *University Interscholastic League Texas Statewide Computer Science Competition* (2014–2015)
- Statewide Student Representative of the *Texas Higher Education Coordinating Board Learning Technologies Advisory Committee* (6/1/2012–5/31/2014)

  Appointed by the Texas Commissioner of Higher Education. Engaged in substantive policy research and discussion regarding the increasingly important role that learning technologies play in Texas higher education.

Current Professional Memberships

- Association for Computing Machinery (ACM)
  - ACM Special Interest Group on Computer Science Education (SIGCSE)
- Computer Science Teachers Association (CSTA)
  - Vermont Computer Science Teachers Association (VCSTA)
- Institute of Electrical and Electronics Engineers (IEEE)
  - IEEE Computer Society
  - IEEE Education Society

Peer Review/Program Committees

- SIGCSE, ACM (2017–2025)
  - Associate Program Chair, Position and Curricula Initiatives (PCI) papers (2021, 2023–2025)
    Outstanding Associate Program Chair Award, 2024

- ITiCSE, ACM (2017–2024)
- CSTA (2019–2024)
- Vermont State University Academic Excellence Conference (2023–2024)
  - Conference Webmaster (2024)
- *InRoads*, ACM (2017–2018)
- ICER, ACM (2014–2016)
- *Transactions on Education*, IEEE (2015)
- *Texas Mathematics Teacher*, Texas Council of Teachers of Mathematics (2003–2004)

Licenses and Certifications

- Amateur Radio Service **[Link]**
  - *General* class. Callsign: KE5IRD (2007–)
  - *Technician* class. Callsign: KE5IRD (2006–2007)
- Online Learning Consortium **[Link]**
  - Online Teaching Certificate (2021–)
- Texas State Board for Educator Certification **[Link]**
  - *Secondary Computer Information Systems*, Grades 6–12 (Active: 2003–2029)
  - *Secondary Mathematics*, Grades 6–12 (Active: 2003–2029)
- Vermont Agency of Education **[Link]**
  - *Computer Science*, Grades 7–12 (Active: 2024–)
  - *Mathematics*, Grades 7–12 (Active: 2024–)

Grants Awarded

- Vermont Biomedical Research Network (10/2021). $15,897: VBRN Equipment Grant.
- National Science Foundation (09/2014–08/2017). $457,287: Project Engage: Training Secondary Teachers to Deliver Computer Science and Engineering Instruction. Award# 1441009. Role: Other Professional (effort 75%).
- National Science Foundation (09/2011–08/2014). $999,920: Project Engage! Award# 1138506. Role: Other Professional (effort 100%).
- National Science Foundation (02/2010–08/2011). $180,232: A Planning Grant for Establishing UTeach-CS. Award# 0959827. Role: Other Professional (effort 100%).
- Texas Education Agency (2007). $1,620. Texas Educator Excellence Grant.
- The University of Texas at Austin (2002). $1,000. R.L. Moore Grant for Project-Based Instruction in Mathematics.

Honors and Awards

- ACM/SIGCSE "Outstanding Associate Program Chair" Award (2024)
- Named "Teacher with the Largest Number of Latino Students in the Nation Passing the Advanced Placement Computer Science Exam" by College Board (2007) **[PDF**, p. 28**]**

– UTeach/R.L. Moore Award for Inquiry-Based Teaching in Mathematics, Science, and Computer Science from The University of Texas at Austin (2004). $1,000.

– Melissa J. Stevens Scholarship (2003). $2,500.

– AISD Future Teacher Scholarship (2002–2003). $3,000.

– Pepsi Scholarship (1992). $1,500.

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