

Dinesh Ayyappan

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Research Interests: AI Safety and Fairness, Human-AI collaboration, AI in Education

EDUCATION

Universitat Pompeu Fabra

PhD in Computer Science

Georgia Institute of Technology

Master of Science in Computer Science

University of Massachusetts - Boston (Boston Teacher Residency)

Master of Education in Secondary Education

Carnegie Mellon University

Bachelor of Science in Mechanical Engineering

Barcelona, Spain

September 2025 - Present

Atlanta, USA

Jan 2022 - Dec 2024

Boston, USA

July 2014

Pittsburgh, USA

Dec 2012

RESEARCH EXPERIENCE

PhD Research

Prof. Carlos Castillo, Social and Responsible Computing Group

Sep 2025 – Present

Universitat Pompeu Fabra, Spain

- Investigating fairness and safety in public-facing AI technologies
- **Ayyappan D.**, et al., (2026) Workshop: Understanding and Engaging Critical Resistance to AI in Education. CHI 2026, Barcelona. [Website]

Master's Project: LLM Tutoring

Prof. David Joyner

Jan 2024 – Dec 2024

(remote) Georgia Institute of Technology, USA

- Researched and developed an intelligent assistant that teaches rhetorical analysis and metacognitive skills
- Designed and deployed an IRB-approved study with over 100 subjects involving students, parents, and teachers at a private international school in Singapore
- **Ayyappan D.**, & Joyner D. A. (2025) Building Self-Reliance in an Era of Accessible Intelligent Tutors. Tools for Thought Workshop, CHI 2025, Barcelona, Spain. [Paper]

Research Assistant

Design & Intelligence Lab, Prof. Ashok Goel

June 2023 – Dec 2024

(remote) Georgia Institute of Technology, USA

- Analyzed logged user data and built experimental features in a virtual ecological simulation environment
- Investigated wheel spinning behaviors and developed predictive models for identifying when learners need coaching support
- Led design and development of follow-up study to validate published findings
- Kos, J., **Ayyappan D.**, & Goel, A. K. (2024) A Constructivist framing of wheel spinning: Identifying unproductive behaviors with sequence analysis. Proceedings of 20th International Conference, ITS 2024, Springer, Thessaloniki, Greece. [DOI]

Supervised NLP Research

Prof. David Joyner; Georgia Institute of Technology, USA

Aug 2022 – Dec 2022

(remote) Georgia Institute of Technology, USA

- Examined language used in over 200,000 peer reviews in four courses over three years to uncover grammatical and lexical patterns that differ by L1; supervised by David Joyner

PROFESSIONAL EXPERIENCE

Teacher of Computer Science

Singapore American School, High School

July 2020 – June 2023

Singapore, Singapore

- Developed new curriculum and content for AP Computer Science (CS) A, CS 1, Game Design, and Mobile Apps at a leading, private international school
- Increased enrollment in CS courses over 20% per year and was selected by entire student body for annual teacher award two consecutive years
- Co-founded new student clubs Girls Who Code, Code for All with 60+ members and \$5000 budget

IB Teacher of Math, Computer Science, and Design

Woodstock School

July 2018 – June 2020

Mussoorie, India

- Taught math, design, and computer science from beginner to college-level (AP, MYP, HL) in private, co-ed, international boarding school aligned with IB standards
- Founded and coached extracurricular game development and eSports clubs with 30+ members

Adjunct Faculty, Information Technology Department

Sept 2016 – Aug 2017

*Bunker Hill Community College**Boston, MA*

- Served as founding teacher for Charlestown Tech, a college pathway program for urban high school students
- Collaborated with Boston-area program partners to adapt curriculum and exhibit student work
- Hosted CEO of Fortune 500 partner *SAP* for in-school fireside chat

Teacher of Physics and Engineering

Sept 2014 – Aug 2017

*Charlestown High School**Boston, MA*

- Led science team in developing aligned spreadsheets to track student-level competencies
- Conferred with district teachers in skills workshops on effective grading, classroom layout design, inquiry-based science, and formative assessment

Instructional and Tech Support

July 2019

*Girls Make Games**San Francisco, CA*

- Triaged and responded to technical issues from camps across the US

Instructional Consultant

Oct 2017 – Feb 2018

*Charlestown High School**Boston, MA*

- Advanced teachers' data-driven decision making with Chief of Evaluation
- Coached 11 teachers individually in making their first or next steps

Design Fellow

Feb 2017 – May 2017

*Woodrow Wilson Academy**Boston, MA*

- Reviewed a prototype curriculum unit including an online challenge, clinical, studio, and practicum seminar
- Coached 11 teachers individually in making their first or next steps

AWARDS AND HONORS**Connor O'Gorman Cornerstone Award**, Singapore American school (2022, 2023)**Finalist**, Goethe-Institut Art Games Jam (2017)**Exemplary, Professional Culture (top 10%)**, Charlestown High School (2017)**Joyful Learning Conference Presenter**, Boston Teacher Residency (2015)**First Lecture Young Alumni Speaker**, Carnegie Mellon University (2014, 2015)

SKILLS**Programming Languages**: Python, Java, C#, JavaScript, CSS, SQL**Methods**: Game Development, ML, NLP, DL, RL, CV**Software**: Unity, Git, Docker, AWS**Libraries and Frameworks**: pandas, NumPy, Matplotlib, Flask, Seaborn, React, Express, MongoDB**Additional spoken languages**: Spanish (intermediate), Hindi (beginner), Catalan (beginner), Mandarin (beginner)

PRESS

Podcast: OMSCS Buzz S3E2: Dinesh Ayyappan (Georgia Tech Podcast, September 2024)

Article: Student Spotlight: Dinesh Ayyappan (Georgia Tech News, July 2023)

Article: Teaching, learning, and appreciating with Ms. Leaf and Mr. Dinesh (Woodstock School Student Newspaper, July 2020)

Article: First-year teachers on why they teach (Boston Globe, October 2014)