

# Dinesh Ayyappan

U.S. Citizen | [dinesh.ayyappan@upf.edu](mailto:dinesh.ayyappan@upf.edu) | [dineshayyappan.com](http://dineshayyappan.com)

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

## EDUCATION

<b>Universitat Pompeu Fabra</b> <i>PhD in Computer Science</i>	Barcelona, Spain September 2025 - Present
<b>Georgia Institute of Technology</b> <i>Master of Science in Computer Science</i>	Atlanta, USA Jan 2022 - Dec 2024
<b>University of Massachusetts - Boston (Boston Teacher Residency)</b> <i>Master of Education in Secondary Education</i>	Boston, USA July 2014
<b>Carnegie Mellon University</b> <i>Bachelor of Science in Mechanical Engineering</i>	Pittsburgh, USA Dec 2012

## RESEARCH EXPERIENCE

<b>PhD Research</b> <i>Prof. Carlos Castillo, Social and Responsible Computing Group</i>	Sep 2025 – Present <i>Universitat Pompeu Fabra, Spain</i>
<ul style="list-style-type: none"><li>Investigating fairness and safety in public-facing AI technologies</li><li><b>Ayyappan D.</b>, et al., (2026) Workshop: Understanding and Engaging Critical Resistance to AI in Education. CHI 2026, Barcelona. [Website]</li></ul>	
<b>Master's Project: LLM Tutoring</b> <i>Prof. David Joyner</i>	Jan 2024 – Dec 2024 <i>(remote) Georgia Institute of Technology, USA</i>
<ul style="list-style-type: none"><li>Researched and developed an intelligent assistant that teaches rhetorical analysis and metacognitive skills</li><li>Designed and deployed an IRB-approved study with over 100 subjects involving students, parents, and teachers at a private international school in Singapore</li><li><b>Ayyappan D.</b>, &amp; Joyner D. A. (2025) Building Self-Reliance in an Era of Accessible Intelligent Tutors. Tools for Thought Workshop, CHI 2025, Barcelona, Spain. [Paper]</li></ul>	
<b>Research Assistant</b> <i>Design &amp; Intelligence Lab, Prof. Ashok Goel</i>	June 2023 – Dec 2024 <i>(remote) Georgia Institute of Technology, USA</i>
<ul style="list-style-type: none"><li>Analyzed logged user data and built experimental features in a virtual ecological simulation environment</li><li>Investigated wheel spinning behaviors and developed predictive models for identifying when learners need coaching support</li><li>Led design and development of follow-up study to validate published findings</li><li>Kos, J., <b>Ayyappan D.</b>, &amp; 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]</li></ul>	
<b>Supervised NLP Research</b> <i>Prof. David Joyner; Georgia Institute of Technology, USA</i>	Aug 2022 – Dec 2022 <i>(remote) Georgia Institute of Technology, USA</i>
<ul style="list-style-type: none"><li>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</li></ul>	

## PROFESSIONAL EXPERIENCE

<b>Teacher of Computer Science</b> <i>Singapore American School, High School</i>	July 2020 – June 2023 <i>Singapore, Singapore</i>
<ul style="list-style-type: none"><li>Developed new curriculum and content for AP Computer Science (CS) A, CS 1, Game Design, and Mobile Apps at a leading, private international school</li><li>Increased enrollment in CS courses over 20% per year and was selected by entire student body for annual teacher award two consecutive years</li><li>Co-founded new student clubs Girls Who Code, Code for All with 60+ members and \$5000 budget</li></ul>	
<b>IB Teacher of Math, Computer Science, and Design</b> <i>Woodstock School</i>	July 2018 – June 2020 <i>Mussoorie, India</i>
<ul style="list-style-type: none"><li>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</li><li>Founded and coached extracurricular game development and eSports clubs with 30+ members</li></ul>	

## 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*

- Triageed 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

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**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

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**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

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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)