

Carter W. Zenke

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Education

Duke University, Trinity College of Arts and Sciences – Durham, NC

Self-designed, interdisciplinary B.A. in Education for the Digital Age – May 2020

GPA: 3.99 – Phi Beta Kappa junior-elect

Capstone: Design of Grades 3-5 Computer Science (CS) Education for the State of North Carolina

Selected Fellowships, Scholarships, & Awards

Angier B. Duke Memorial Scholarship, Duke University

1 of 19 Duke applicants “most embodying a commitment to solving challenges faced by society”

\$1 Million Catalytic Grant Finalist, Frank Foundation

1 of 8 finalists selected for “best education technology project poised to fix American education”

John Lewis Fellowship, Congressman John Lewis and the National Center for Civil and Human Rights

1 of 25 international fellows chosen for record of advancing human rights through education

Davis Projects for Peace Award, Davis Projects for Peace Foundation

\$10,000 award furthering KMI’s “extraordinary potential to promote youth’s peace-building skills”

Education Start-up Catalytic Award, Triangle Learning Network

\$10,000 award for CSbyUs’s work “inspiring Triangle Region to enhance teaching and learning”

Holton Prize for Innovative Work in Education, Duke Program in Education

Typically awarded to senior theses, but received as first-year for reimagining CS education in Durham

Selected Projects

The CSbyUs Lab; Co-Founder, Director of Research & Development – Durham, NC

CSbyUs believes in democratizing the digital age by supporting young computational creators

I have developed our research agenda, curricula, and strategic partnerships, leading CSbyUs to...

- Be commissioned by North Carolina to design the state’s first elementary CS curriculum
- Assemble 15+ schools and non-profits to co-develop creative CS learning experiences
- Recruit 30+ undergraduates and graduates to build an interdisciplinary research staff
- Teach 200+ students to make mobile apps to shape the world to their vision

The Karsh Mentorship Initiative (KMI); Executive Director – Kathmandu, Nepal

KMI co-creates purposeful education for Nepali students, with Nepali schools

I lived in Nepal to design curriculum, teacher development, and evaluation methods, leading KMI to...

- Engage 500+ secondary students in education to cultivate their change-making skills
- Collaborate with Microsoft Nepal to enact first hackathon for student social impact projects
- Double number of school partnerships (2 to 4) to increase support for underrepresented students
- Fund three scholarships, beginning fall 2020, to support students in attending U.S. universities

Duke TeachHouse; Residential Innovation Fellow – Durham, NC

TeachHouse aims to scale quality teaching by cultivating local teacher communities

I joined a home of five Durham Public Schools educators to...

- Create technology-enhanced experiences for TeachHouse fellows to foster students' passions
- Launch the TeachHouse Innovation Lab supporting educators in building educational technology

Selected Computer Science Teaching

Student U; High School Math and Computer Science Teacher – Durham, NC

- Led classroom-based research on students' construction of disciplinary identities in CS
- Proudest achievement: Guiding 30 future first-gen college students in building apps to address self-chosen issues such as ICE raids and stress (bit.ly/Student-U-ICE & bit.ly/Student-U-Stress)

Boys and Girls Clubs of Durham; After-School Instructor – Durham, NC

- Partnered youth with non-profits in need of mobile apps to build experiential after-school program
- Proudest achievement: Organizing product “launch day” for students to pitch their projects, on Duke's campus, to an audience of students and faculty

Citizen Schools; Citizen Teacher – Durham, NC

- Synthesized research on self-efficacy, intrinsic motivation, and interest to create year-long program for students to learn app-development as a means to share their passions with peers
- Proudest achievement: Doubling students interested in learning CS, from ~50% to 100%

Funded Research

2019. Lead Researcher, *Using Design Thinking, Project-Based Learning, & Professional Learning Communities to Prepare Middle-School Students for STEM Careers*. \$1.5M, NSF. Under Review.

2018 – Present. Principal Investigator, *Exploring Equitable Disciplinary Identification in Computer Science through CSbyUs*. Awarded \$28,000, Duke Bass Connections.

2017 – 2018. *A Longitudinal Evaluation of the Karsh Mentorship Initiative*. Awarded \$2,200, Duke OUSF.

Selected Publications & Presentations

Zenke, C., Jiang, A., Suh, Y. (2019). *Bending the Arc: Developing Justice-Oriented Education Initiatives*. Workshop at the IMPACT Conference, University of Virginia.

Zenke, C., Chernik, A., & Jiang, A. (2018). *CSbyUs: Harnessing the Power of Open Source to Transform Computer Science Education*. Talk at the All Things Open Conference, Raleigh, NC.

Zenke, C. (2018). *Putting “CSforAll” in Context: Lessons from the American Civil Rights Movement*. National Center for Civil and Human Rights John Lewis Fellowship Essays, 68–70.

Technology Development

Courses: Data Structures and Algorithms, Discrete Math for CS, Development of Open Source Ed-Tech

Languages: Proficient in Java, Python, JavaScript (+ jQuery), HTML, and CSS (+ Sass)