

# Industry Leaders Make an Impact on Computer Science Access and Equity

CSforALL

*CSforALL's Member EnCorps Shares Their Work on Addressing the Large STEM Equity Gap in California and Beyond*



California is a leader in the tech economy, and yet, just 39% of California schools offer computer science education and there are large equity gaps in access: low-income schools are four times less likely to offer AP Computer Science.

Since 2007, [EnCorps STEM Teachers Program](#) has been working earnestly to fill one of those gaps — access to an excellent STEM teacher. What better way to learn something, than to hear it straight from someone who has lived it? This is the philosophy behind bringing former STEM industry professionals into middle and high school classrooms in low income communities through the EnCorps STEM Teaching Fellowship. EnCorps Teachers are former engineers, programmers, scientists and accountants, bringing academics to life.

*Los Angeles teacher Julius Gawlas says, “I had an amazing career as a computer scientist and engineer and I want my students to see how great it is to use computer science to solve problems. I want them to see the ability to create things out of nothing.”*



Julius Gawlas a Software Engineer becomes Computer Science Teacher, 2020

Julius is one of the 250+ EnCorps teachers who made a transition from industry to teaching. With the reality that lower income and minority students are bearing the brunt of inequities in distance learning and access to technology, and with the unveiling of recurring unconscionable attacks impacting Black communities, we again see the systemic racism and inequities of our American society. Since its inception, EnCorps has worked to advance educational equity, with a focus on bringing authentic, rigorous and relevant STEM education to students who need it most. Each year EnCorps' tutors, guest teachers and full-time teachers impact 35,000 students, the majority of whom are children of color, living in poverty. We believe in the power of math and science education to propel them forward in the 21st century.

Recently, EnCorps teachers connected and reunited at a virtual summer institute, where they discovered the unique need for computer science teachers to share resources and connect. EnCorps Teacher, Joshua Stempel, began the Fellow-Led Computer Science Community of Practice.

*“STEM from my sustainability lense offers several essential things to all students and special value to under-resourced students: Broad examples of meaningful, skilled and lucrative career opportunities students might not be exposed to; Development of essential habits of mind for any career and democratic civic life; And a personal path to connect STEM to their life, community, and experiences,” said Joshua Stempel, began the Fellow-Led Computer Science Community of Practice.*

EnCorps' “game-changer” is bringing in non-traditional CS teachers who have real industry experience and can show students the real-world connections and job opportunities. Another member of the Community of Practice, Shrotriyee Jacque, volunteered for over a year in a Microsoft TEALS classroom and will begin her own first year teaching this fall at Coliseum College Prep Academy in Oakland, a school that consists of 94% students on free and reduced priced lunch. Shro is passionate about computer science because it puts her students on a path to college

readiness. We also know we need representation — and we're proud to say 45% of EnCorps Fellows are educators of color. We are committed to increasing that number to 50% of our newest cohort. Being a female of color in the CS space, Shro envisions her classroom as a place where her students can see themselves, with student voice and peer instruction. All students at CCPA will take AP computer science to graduate. Unfortunately this is not the case for many low-income schools that do not even offer CS.

We must do more, and with expansion in July 2020 to the Denver, Colorado metro area, EnCorps hopes to expand student impact. EnCorps made a 2-year commitment to the CSforALL network to recruit, prepare, and support 50 STEM professionals as they transition to teaching computer science in secondary high-need public schools during the 2019–2021 school years, impacting 5,550 students.

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**About EnCorps:** *The EnCorps STEM Teachers Program empowers science, technology, engineering and math (STEM) professionals to transform public education by teaching in high needs schools. Enduring STEM achievement, access, and literacy gaps disproportionately limit low income, under-resourced, and minority student opportunities. STEM professionals, when thoroughly prepared, are uniquely positioned to meaningfully utilize their talent and real-world expertise as EnCorps STEM Teachers to deliver an authentic, rigorous, and relevant STEM education to the students who need it most. EnCorps is an innovative, long-term solution to the shortage of high quality, impactful educators for under-resourced students in high needs schools.*