The Value of an Interdisciplinary Education

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I still remember the moment I decided to switch into Duke's computer science major.

It was the summer between my freshman and sophomore years at Duke. I was a prospective public policy major and an intern at a nonprofit for migrant worker's rights in my home country, as part of the Sanford School's Service Opportunities in Leadership summer program. Armed with my writing skills, a research grant, and naïve ambition, I hoped to be of service to a worthy cause. But it turned out that my supervisor wanted me to spend my internship writing advocacy journalism pieces—one of the few things, I told him, that my research grant did not allow me to do. Digesting this unwelcome news, my supervisor groused that a group of local college students had built the case management software system that the nonprofit used to keep track of migrant workers who came to him looking for food, shelter, and recompense. If only I could create something of value.

What did I have to offer in service, standing that day in that nonprofit's too-cramped office, besides my bare hands and my affinity for the written word? I had taken CS101 my freshman spring on a dare, but the inner workings of technology remained a mystery to me. Coincidentally, that very same summer, an education nonprofit I had co-founded needed a website, and none of the co-founders could code.

Unbeknownst to him, my supervisor had gifted me a blinding moment of clarity. I had wanted to be of immediate, direct help. Computer science showed me a path forward. I embraced this change of direction, declared a second major in computer science, and threw myself into my coursework.

By studying computer science and public policy, I learned to navigate both the 'how's and 'why's of our increasingly digital world. Though I am far from achieving technical proficiency, my computer science education at Duke has given me both the programming skills to build websites for nonprofits in need and taught me things like why there's no such thing as perfect security. It's also given me the technical vocabulary with which to begin making sense of tech policy debates over data privacy, artificial intelligence, encryption, and the race to 5G.

Importantly, my second major in public policy also acted as a much-needed countervailing force against tech solutionism. Too many people believe that technology is capable of solving all problems. My studies in public policy showed me otherwise. As a student of computer science, I saw how software has connected billions, placed knowledge and opportunity within reach, and lifted millions out of poverty. As a student of public policy, I saw how access to this digital world accrued disproportionately to the wealthy and educated, and the potential of emerging technologies like facial recognition to reshape the very fabric of our society. We learned the language of tradeoffs, alternatives, and cost-benefit analysis. Public policy taught me the nuance and humility that comes with realizing that there are no easy solutions—technological or otherwise—to the world's biggest problems. Even as I tunneled deeper into computer science in

search of technical excellence, my public policy studies were a constant voice in my ear reminding me to always pull back and see the bigger picture.

Moreover, simply by virtue of majoring in both, I started to draw unexpected connections between the two. As a policy intern at a tech trade association, I learned about how Section 230 of the Communications Decency Act enabled the rise of the decentralized web, and how the U.S. military invented both the internet and GPS. In Duke's operating systems course, I learned about centralized and decentralized distributed systems and linked them to governance models and trust. While completing a software engineering internship, I learned of technologists who work in the policy world, and policy wonks who create technology policy. It became abundantly clear to me that technology and policy were inextricably intertwined.

Without spending that first summer trying to do good on a Sanford program, I never would have embarked on my computer science journey. As it stands, my education at Duke—both inside and outside the classroom—has empowered me with interdisciplinary knowledge and gifted me with a newfound sense of personal and professional purpose. I do not feel that I have figured out how to combine my policy and software skillsets to directly address the biggest problems that we face as a society, but I believe that I am taking steps in the right direction. On the cusp of a virtual commencement, armed with policy and software knowledge and slightly-less-naïve ambition, my pledge and promise to myself is that I never stop trying to use my technical skills for good, while also retaining the humility and clarity of purpose that my policy studies have given me.