The Tech4Good Lab

Partnering with Your Future Is Our Business in Student Learning and Business Development
Tech For Good in Santa Cruz County

Assistant Professor of Computational Media David Lee leads the Tech4Good Lab, directing research on scaling experiential education and supporting community collaboration at the intersection of computing and society. Seeking to build sustainable relationships with community partners and to offer experiential learning opportunities to undergraduates, Tech4Good recently started a pilot matchmaking program that pairs different community partners with capstone courses and student organizations on campus. Lee’s experience running the program prompted him to directly incorporate experiential learning into his course “Business Strategy and Information Systems,” which introduces students to the use and design of digital products to support businesses in achieving their goals. For the spring 2022 quarter, Lee structured the course around supporting Your Future is Our Business (YFIOB), a non-profit organization that participated in the pilot matchmaking program and on whose board he now sits.

Building Relationships

YFIOB works with Santa Cruz county high schools and middle schools to offer students hands-on opportunities for improving academic and technical skills. Lee’s course was structured around supporting strategic assessment for YFIOB, and from there, developing projects to support identified needs. During the first six weeks of the quarter, students interviewed YFIOB leadership, members, and stakeholders in order to understand what they felt were the organization’s strengths, weaknesses, and areas of opportunity. The students interviewed or surveyed over 40 people involved with YFIOB and generated two reports summarizing their findings. The reports facilitated conversation within YFIOB, surfacing ideas for projects that the students could develop in the remaining four weeks of the quarter. These included creating a database to streamline YFIOB’s engagement with volunteers using the application AirTable, extending the YFIOB website to support youth in exploring careers through over 100 one to three minute clips curated from YFIOB’s podcast interviews, and creating hi-fidelity designs for an application that makes career development for youth a fun, game-like experience.

Lee designed the course to emphasize relationship-building with YFIOB and to address some of the challenges that engineering courses often face when engaging with the community. In particular, engineering courses tend to be technically oriented, sometimes at the expense of deep learning about the needs of the organizations they are hoping to serve. Additionally, the time it takes to design and build out projects that deliver sustainable value can often exceed the duration of a college course. To counter this, Lee organized the entire course around as single partner, and had teams supporting both short-term and long-term projects. Short-term projects enable students to deliver immediate value to YFIOB, while those that require longer time frames can be passed on to following iterations of the class, other engineering courses, or to student teams within the

Overview of themes

YFIOB’s Core Values

1. Being student and school centered in everything we do
   • Building close partnerships that are educator-led and focused
   • Considering every student’s diverse backgrounds and career paths
   • Practicing what we preach in providing hands-on learning

2. Fostering a culture of community investment
   • Bringing schools and businesses together
   • Working closely with local community partners
   • Identifying and promoting candid, caring, authentic volunteers

3. Continuous improvement of our operations and services
   • Growing the scope and quality of our impact
   • Establishing strong financial sustainability
   • Fostering a strong harmonious leadership team
Supporting students in developing their careers is also important to Lee, which is why the course centers on projects that both meet the needs of the organization and create real-world learning and skill development for undergraduates. Throughout the course, the students are mentored by a team of graduate and undergraduate students working with the Tech4Good Lab. These student mentors are now supporting Lee in digging into the literature on design and youth career development to scope out new research projects that align with YFIOB’s needs. Lee hopes that these early steps will help to lay the foundation for following iterations of the course and make it possible to connect the course outcomes to longer-running research teams for more sustained engagement and collaboration with community partners in the future.

**Experiential Learning**

“I’m really trying to make sure that there is a strong alignment between what students are learning and delivering something that is valuable for the organization. I think in engineering, it can sometimes be challenging because engineering courses are really technically-focused. The hope is that this work can actually be a foundation for supporting collaborations that typically don’t happen in the [discipline].”

- David Lee

"In the fast changing job market, Professor Lee has created an opportunity for students to gain the experience needed in order for students to be able to succeed in their careers. Students need to be well rounded and devoted to the communities they will work in, because we know that investing in our community has a direct return on ones quality of life. This course does that, and we are thrilled to have been given the opportunity to work with the class. I hope to continue the partnership as it aligns perfectly with our mission.

- Yvette Brooks, Executive Director of Your Future is our Business
Questions? Contact us.

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