Snohomish County, University of Washington Partnership Advances Innovation

_UW Industrial and Systems Engineering Capstone Project will provide Snohomish County an estimated $70,000 savings annually_

EVERETT, Wash., July 12, 2022 – Snohomish County’s Department of Information Technology (IT) and the University of Washington (UW) Industrial and Systems Engineering Program in the College of Engineering today announced the completion of their 2022 Capstone Project. This year’s project participants solved a challenge with retail software request and approval systems. Completion of the project by College of Engineering students will save Snohomish County approximately $70,000 per year and simplify a cumbersome process, saving many hours of work.

“Snohomish County strongly believes that we can better serve the public and solve more problems when we partner with others in our community,” said Snohomish County Executive Dave Somers. “We are very grateful to the University of Washington for providing cutting-edge solutions to some of our most challenging real-world problems.”

The program is important to sponsor’s and the university because it not only solves real problems but also gives students real-world experience. “The UW Industrial and Systems Engineering Capstone Program provides students with industry problems and gives them an opportunity to apply the skills and knowledge that they have accumulated over their years at UW,” said the Faculty Advisor of UW’s ISE Capstone Program Patty Buchanan. “From prominent government agencies to Fortune 500 Companies, there is no lack of industrial and systems challenges. We appreciate partnering with Snohomish County to provide our students with a chance to work with IT professionals. The students enjoyed working with Snohomish County and being given the opportunity to use their programming and analytical skills to solve a real-world problem.”

The UW Industry Capstone Program enables companies and others to sponsor a group of UW College of Engineering senior students to conduct a project. The project is identified in the fall quarter, and the students engage with the problem during winter and spring quarters, culminating in a project presentation and summary at the end of the spring quarter. One of the key attributes of this program is that the students leave behind a project deliverable that has direct business impact and the potential for positive outcomes.
Sahana Sundar, UW ISE capstone student, found that learning within this problem-solving process allowed for a lot of student growth in an independent but also supportive environment. “Working with the Snohomish County IT department was both an educational and enjoyable experience,” said Sahana. “Our project sponsors Viggo Forde and Joannie Fadden gave us a lot of autonomy on how we solved the problem, while simultaneously being readily available and providing us all the data and information we needed to create an impactful solution. My teammates and I are proud that our work will save the IT department time and money, and grateful for the opportunity to apply our ISE skills to improve local government.”

“The UW capstone program is a highly interactive program that provides a great experience for both the county and the students,” said Snohomish County CIO and Department of Information Technology Director Viggo Forde. “We were thrilled to see the work that Sahana, Nick, and Kyle delivered, providing direct savings to the county. In addition, our engagement with the students provided great insight for us as leaders.”

In 2020, Snohomish County IT hosted its first UW Capstone project conducting a project in the county’s records center. The success of this project motivated IT to sponsor another capstone project in 2022. This year’s project addressed a nagging problem that IT had struggled with for some time: the extended time of the retail software request and approval process. Retail software is any software product that an employee of Snohomish County would want to have downloaded on their county computer to help them complete their work. This approval process for new software would often take months, frustrating employees and taking up too much of IT’s time.

The three engineering students—Sahana Sundar, Nick Shawger, and Kyle Sledge—designed an elegant solution to this problem using innovative thinking as well as leveraging existing technical solutions in place in the department. Namely, the students formulated a solution to this problem that involved using an interface that IT had already integrated for certain software requests. This interface was constructed in EasyVista and allows for an expedited request process for highly utilized common software products like the Microsoft and Adobe suites. The team concluded that adding more software products to this interface, therefore allowing more software products to have an expedited request process, would greatly reduce the number of lengthy approvals needed using the standard request process.

The outcome of this effort resulted in a project deliverable that saves the county 175 FTE hours every year, estimated at about $70,000 annually. In addition, the improved ability to support internal county customers and reduce frustration and roadblocks for county employees are added benefits.

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