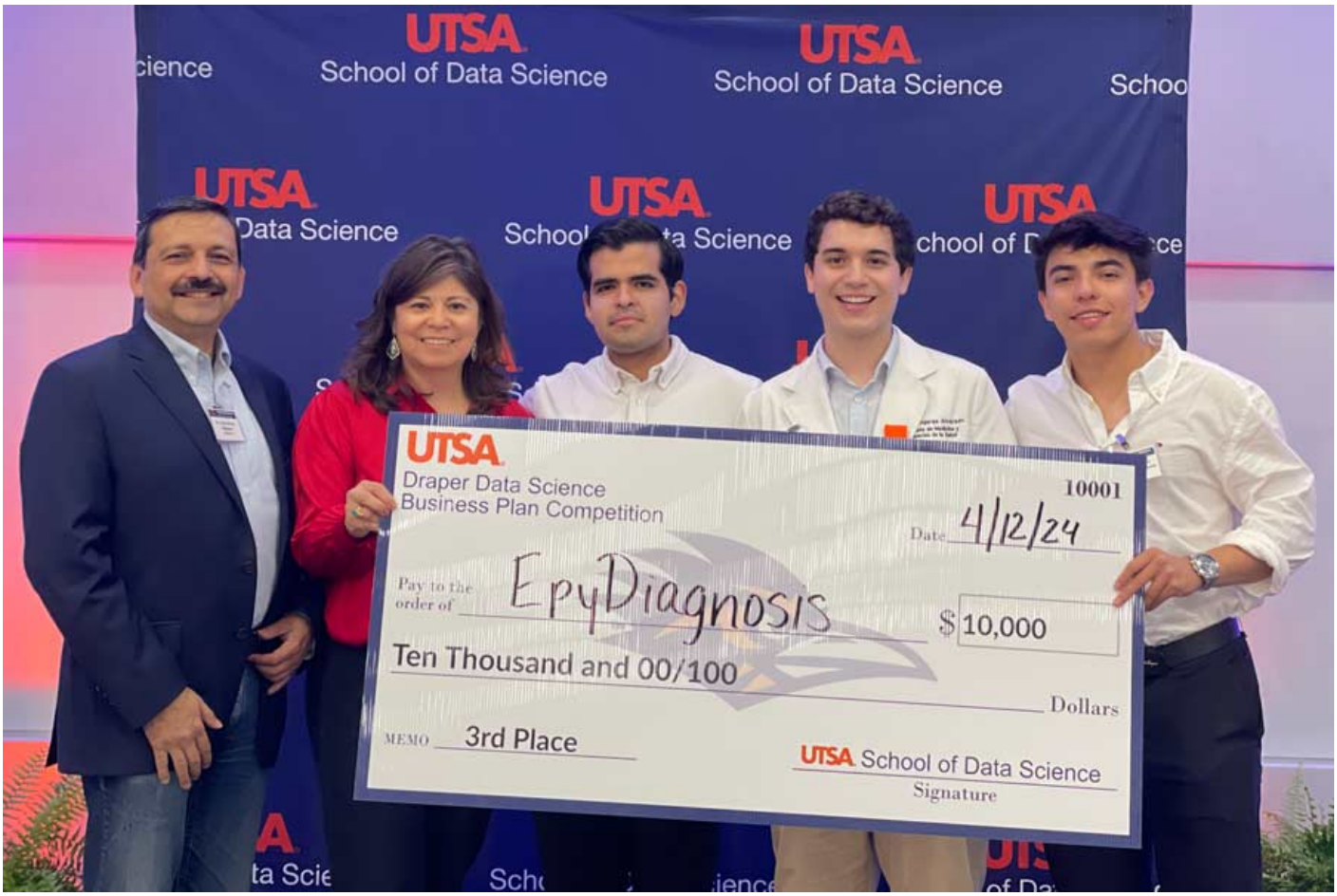
Tec students win third place in UTSA data science tournament

Tec students have won third place in the **UTSA Draper Data Science Business Plan Competition** with ***EpyDiagnosis***, a project that seeks to detect **cancerous** pulmonary **nodules** through **neural networks**.

The competition, held on April 12 in Texas, had **six finalists** who presented their business plans to judges at the **University of Texas at San Antonio** (UTSA) School of Data Science.

Participating were Monterrey campus students **Ammadeus Vega**, CEO of *EpyDiagnosis*; **Josué Gutiérrez**, Operations Director; and **Raul Monjaras**, Medical Director.

This third place in the competition also earned them a prize of **ten thousand dollars**.



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*"The funds obtained will be used for the **neural network** and to make modifications that would have taken more time. It encourages us to keep taking part in other projects,"* pointed out Vega, who is also an Economics and Law student.

EpyDiagnosis, created in 2020, combines **artificial intelligence with data analytics** in order to revolutionize early diagnosis of lung cancer and optimize treatment.

The *UTSA Draper Data Science Business Plan Competition* is designed to train entrepreneurial students in **North America** and promote commercial projects that utilize data science to generate value.

"It encourages us to keep taking part in other projects." - Ammadeus Vega

Seeking to streamline diagnosis

The aim of *EpyDiagnosis* is to diagnose lung cancer with the integration of **data science** and artificial intelligence, implementing **algorithms and neural networks** for medical data analytics.

*"Part of the challenge is how to visualize the **parameters** used by a radiologist and translate these into artificial intelligence. These parameters are the **gray scales** or cross-sections that a tomography might have,"* explained Josué, who is also an Economics student.

At the start of 2024, the students began a collaboration with **Highly Specialized IMSS Medical Unit No. 25** in Monterrey, for **medical validation** of the functions of *EpyDiagnosis*.

*“We’ll be publishing a paper in collaboration with them in the coming months that will evaluate the neural network. Some other elements that will be evaluated will be its **efficiency and accuracy**.*

“After the paper is published, we could go on to another phase at the IMSS itself,” said Vega.

/> width="900" loading="lazy"> **The origin of EpyDiagnosis**

Four years ago, Ammadeus Vega won the **Entrepreneurial Talent Scholarship** for his *EpyDiagnosis* project, which began as a tool for monitoring the **vital signs** of patients with chronic diseases.

“Epy was created because a relative had epilepsy and it was going to be a tool for that disease.

“It then became a tool focused on lung cancer. Now, we’ve been working on a neural network to detect that cancer,” explained Ammadeus.

The Entrepreneurial Talent Scholarship consists of up to **70%** support towards the cost of an undergraduate degree at the Tec. It requires students to have a **startup**.

Students who receive this scholarship join a support ecosystem for their projects within the **Eugenio Garza Lagüera Institute of Entrepreneurship**, which offers **ideas laboratories**, mentoring sessions, and networking, to name but a few.

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