

Smarter
technology
for all

Lenovo

THINKPAD UNIVERSITY COURSE CATALOG

AI & BIG DATA IN HIGHER ED

Whether it's providing personalized support to students, improving learning tools, identifying potential areas of optimization, or anything in-between, Artificial Intelligence (AI) and big data are crucial to success in Higher Ed. For this edition of the ThinkPad University Course Catalog, we'll take a look at how schools across the country are putting these critical technologies to work for them.



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IMPROVING STUDENT SUPPORT

Georgia Tech
launched Jill Watson,
an AI-enabled chatbot¹



Provides **round-the-clock**
personalized support for
all students²



Answers around **10,000**
questions per semester²



Able to answer with an
accuracy rate of **97%**²

“Once students knew about
Jill, they were so motivated,
so engaged. I’ve never seen
this kind of motivation
and engagement.”

Professor Ashok Goel,
Georgia Tech

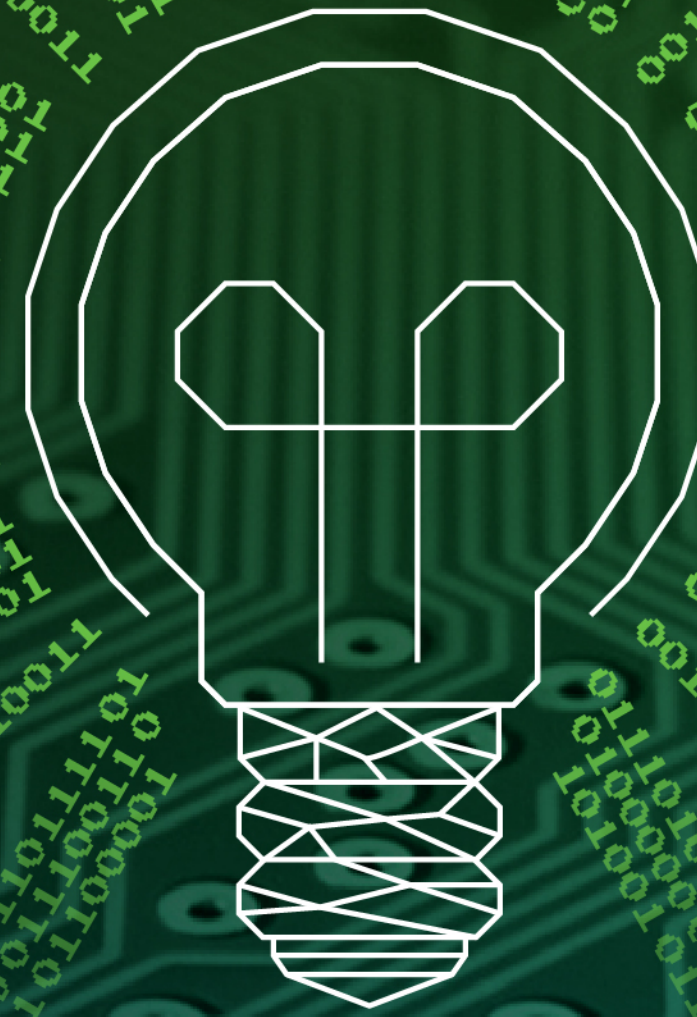


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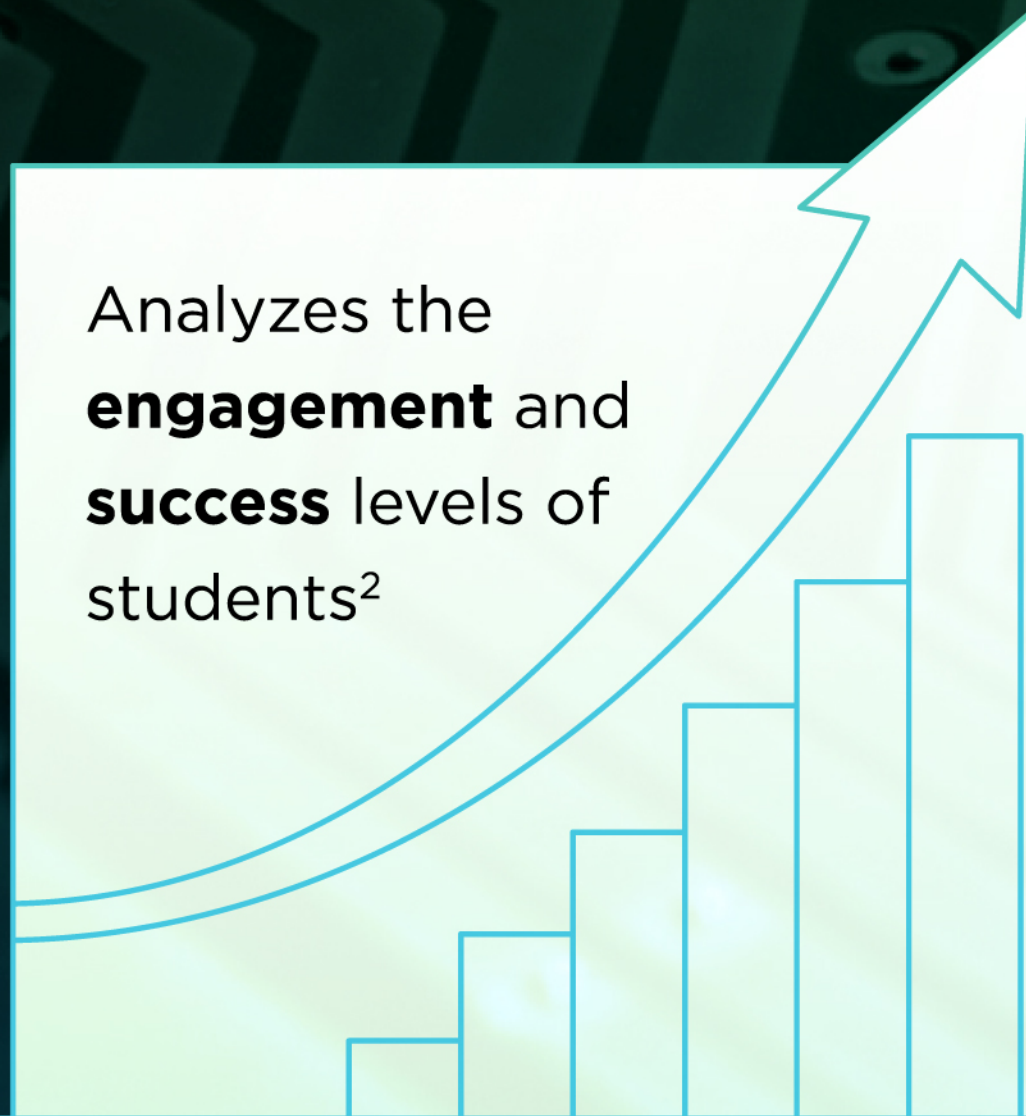
MAKE THE MOST OF MACHINE LEARNING

Ivy Tech Community College created a machine learning algorithm²



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Analyzes the **engagement** and **success** levels of students²



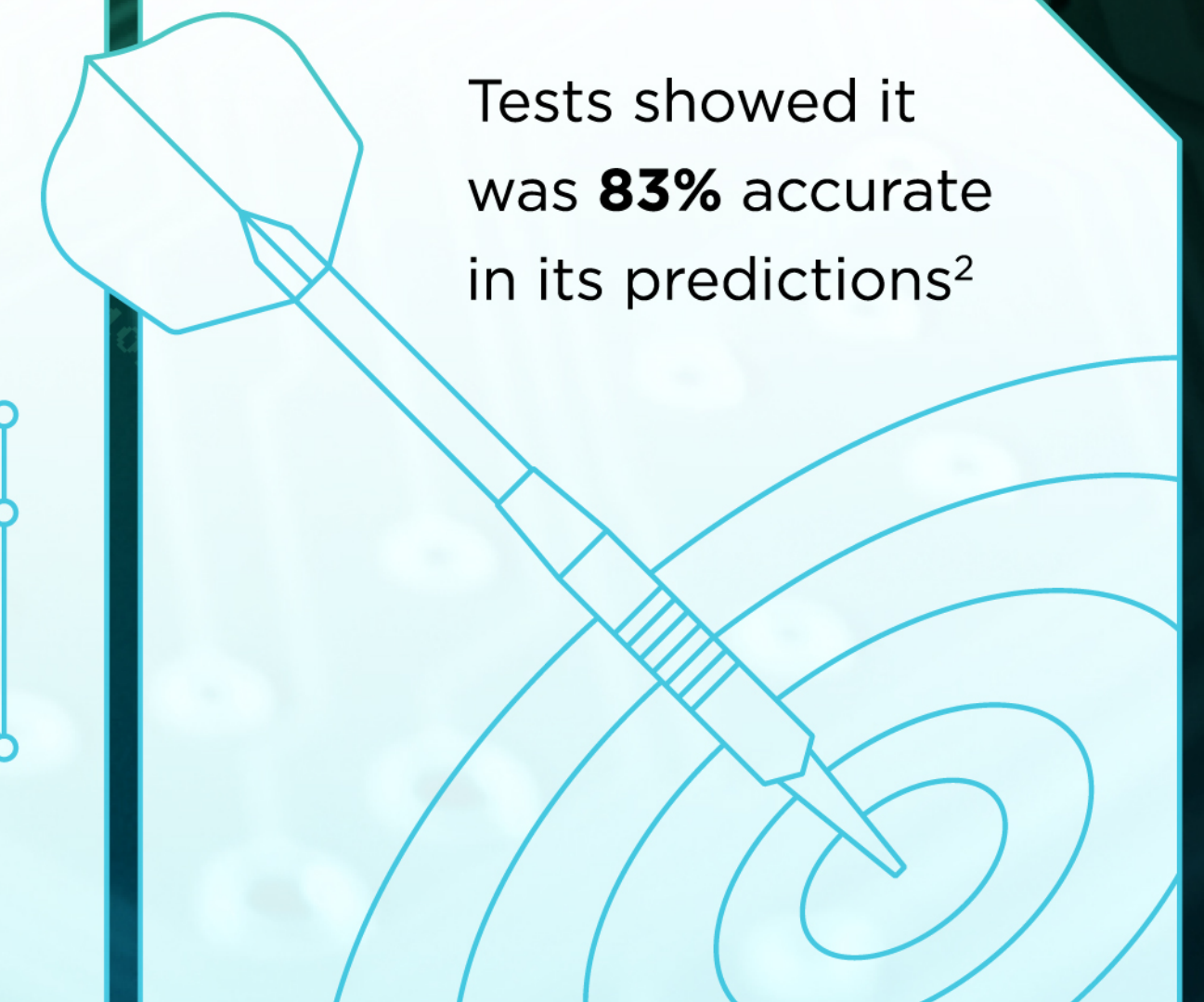
Identifies students who require **intervention** or are at risk of **dropping out**²



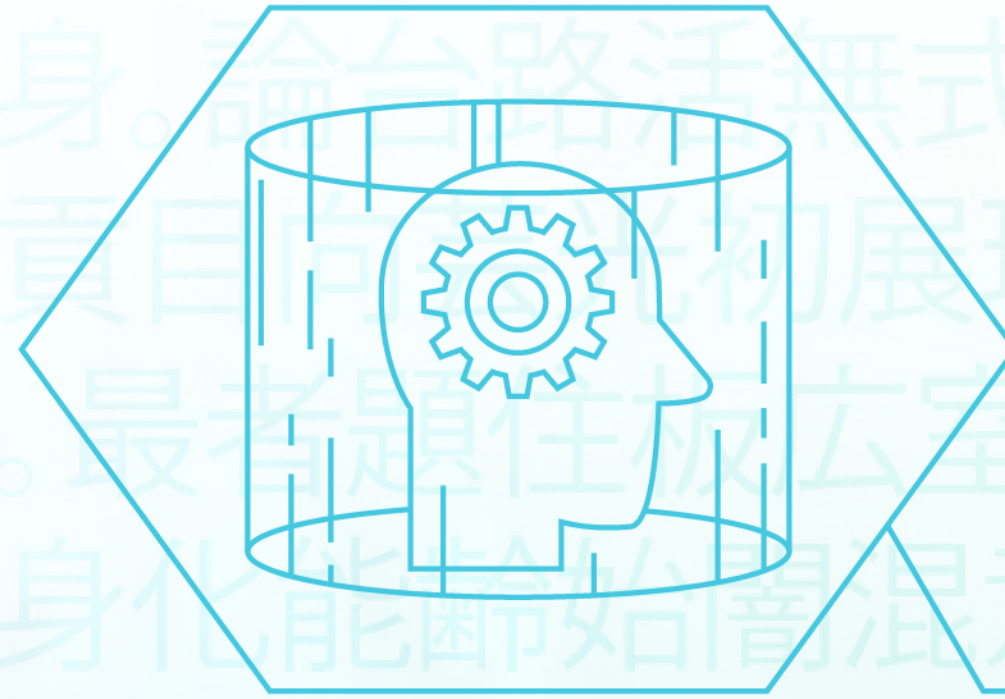
Leveraged **12 million** student interaction data points²



Tests showed it was **83%** accurate in its predictions²



AI-ENABLED IMMERSION



Launched the
Cognitive Immersive Room²

Allows for various **realistic settings**
such as restaurants or classrooms²



Students can practice with the
AI chatbot in real-time²

Combines **gamification techniques**
with the raw power of AI and big data²



**RPI teamed up
with IBM Research
to help students
learn Mandarin²**

A LOOK AHEAD

WHAT THE EXPERTS ENVISION
IS NEXT FOR BIG DATA

Google's Lukman Ramsey
expects that Higher Ed institutions
will soon be using AI and big data to:



Target prospective students²



Effectively engage with applicants²



Automate processes with AI assistants²

"I truly believe AI, machine learning, and similar tech will be at the forefront of enhancing remote education."

Paul Mumma,
CEO of Cerego³

Learn more at solutions.lenovo.com/TPU



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DON'T GET LEFT OUT

ENSURE YOU HAVE THE RIGHT
TECH FOR THE JOB

- ⦿ Processors should be a mix of cores that optimize both **performance** and **power efficiency**⁴
- ⦿ Storage devices should be a mix of hard disk drives (HDDs) that **optimize capacity** and solid-state drives (SSDs) that **optimize speed**⁴
- ⦿ Memory devices should be a mix of dynamic **random-access** memory (RAM) and **non-volatile** memory (NVM)⁴
- ⦿ **Heavy-duty** software should be matched with **user-friendly** data analytics and machine learning extensions like Apache Spark and TensorFlow⁴

SOURCES:

¹ <https://hbr.org/2019/10/how-ai-and-data-could-personalize-higher-education>

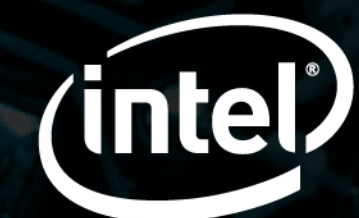
² <https://edtechmagazine.com/higher/article/2020/01/successful-ai-examples-higher-education-can-inspire-our-future>

³ <https://www.disruptordaily.com/future-of-ai-education/>

⁴ <https://asunow.asu.edu/20180917-asu-researcher-shifts-big-data-computing-high-gear>



You've seen exactly how big data and AI are being used at schools like yours, what to keep an eye out for in the future, and what tech you need to harness these platforms. Now, it's time to put the future to work for you. Learn more about how your institution can boost success at solutions.lenovo.com/TPU.



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