Thank you for having me here today. I'm glad to be able to join you at this symposium on the work being done on AI and data science.

Looking at the agenda it is clear why Rutgers is seen as a leader in the technologies that are transforming our present and will define our future.Now, much to the disappointment of my parents, I'm not a data scientist. I'm not an engineer. Unlike many of you, I don't have cutting edge research to share.

But I am lucky enough to serve in a job where I represent our entire state.
One where I've gotten to meet with business leaders who shape the investments that will fund innovation for the rest of this century.

One where I've gotten to spend time with scientists and engineers who will take those investments and forge a future we can only dream of.
And one where I've gotten to talk with working families who want a New Jersey where opportunities and growth are always within reach.

I wanted to take a step back here and share with you today are some thoughts on what I've heard traveling across and representing this state of more than 9 million people.
Thoughts on the moment we're in. On what's possible as we look to the future. How we get there. And what we need to do it.

First we are in a moment of incredible and extreme change.
Technology is changing at breakneck speed, we can only imagine where we'll be a year from now, let alone 10 years from now.
That change is impacting the way we work – the kinds of jobs we do, where we work, what's valuable in the marketplace.

It's impacting our societal structure – creating new connections with data and information, while leaving us more alone and fragmented than ever before.

And it's impacting the very fabric of our state – the physical infrastructure, the energy demands, the water requirements – all part of this moment of change.

This change is coinciding in New Jersey and across the country with an affordability crisis, a crisis in providing care – for our youngest and our oldest – and a crisis of trust – in our institutions, our politics, and in each other.

All this is happening simultaneously to another tectonic shift. We are entering a new global era, different from the post 9/11 world that we have left behind. This is the most competitive global environment that America has faced in 100 years.

We face an inflection point in American leadership, the future of democracy, and a questioning of the rules-based order that has largely defined how the world works for the past few generations.

It's a competition, by the way, that goes beyond whether we will have the best workforce or the best technology.It's a competition – with China and other actors – to determine who writes and enforces the rules.Whose technologies will be adopted globally. And ultimately, whose economies and people will be best situated to prosper in the decades to come.

American global leadership is not predetermined. It is not destined to continue. If we want to remain the global leader, we need to fight for it, work for it.
We have to shape our future, because we if don't, it will be shaped for us. And that would come with significant economic costs and security concerns. It will change our way of life.
The rules, the pathways to success, and the very definitions of success will be written by our competitors and adversaries if we don't step up in this moment.

This is the challenge of our generation. Now the question is, what will we do about it?
As I've sought to develop a national strategy for meeting this moment of global competitiveness, I've come to the realization that New Jersey is perfectly positioned to be a major part of what comes next.

I'm excited by that possibility. This new era of technology will create new centers of innovation. I believe New Jersey can be that hub.

Our state has been that center of innovation before. In the early days of the Republic, Alexander Hamilton looked across the river from Manhattan and saw a home for innovation and invention. Paterson became the nation's first planned industrial city under the vision of Hamilton's "Society for Establishing Useful Manufacturers". Hamilton saw Paterson's importance as an innovation hub as "adding wealth, independence and economic security to a fledgling democratic nation."

From the initial seeds planted by Hamilton, a million flowers bloomed, changing the world around us. The steamboat and steam locomotive were developed in Hoboken, changing the way we traveled and making the world smaller.Edison and his more than one thousand patents – from the phonography to the light bulb – fundamentally changed the world by literally bringing light into darkness. Campbell's changes the way we eat through the invention of condensing soup – making it more affordable and longer lasting for families.

The first transistors, developed at Bell Labs, the first coast to coast phone call, the incredible work of Marconi and Morse, all changed the way we communicate. Countless medicines and life products developed by companies like Johnson and Johnson – from toothpaste and dental floss to surgical tape and Band Aids to a host of lifesaving drugs, changed the way we stay healthy. Men and women working at the Curtiss-Wright Corporation in Paterson and at the New York Shipbuilding Corporation in Camden built the airplane engines and Navy destroyers that changed the outcome of the Second World War, and the future of freedom and democracy.

And Albert Einstein, whose theory of relativity and research made him the “greatest mind of the 20th Century”, changed the way we look at the universe, conduct war, and think about science.

That history, from Hamilton to Einstein to the students studying here today, provides us the roadmap for the work we need to do to shape this moment of change.Now, to meet this current moment, we must build a new strategic and interconnected innovation ecosystem across our state, something I call the Einstein Corridor.

So, what does that mean?

The Einstein Corridor will be a complex ecosystem that will build upon the extraordinary colleges and universities and our existing business community.

It will bring in venture capital in a way we haven’t seen before, create a true start up/entrepreneurship environment, generate advanced manufacturing, modernize our ports and transit, and attract talent from all over the world.

It will provide a blueprint for the future of our state to maximize our own potential.
One that, over the course of the next two decades, can supercharge investment and innovation so that industry leaders and cutting-edge researchers will want to be in New Jersey for fear of missing out.

I’ve heard from too many of you about the challenges to start and grow a business here, or attract capital, or just afford to put down roots, into one where young people will stay, and invest, and invent. This needs to change now.

A few months ago, I traveled to South Korea and Japan with Senator Tammy Duckworth from Illinois where I saw the importance of confronting those challenges.

As we met with business leaders in both countries – leaders of companies that represent the kind of cutting edge innovation that we want to cultivate in New Jersey –who have invested hundreds of millions and sometimes billions in America – one of the things we heard time and time again was that America is a complicated place.
We have federal regulation and incentives on top of state regulation and incentives on top of local regulations and incentives.

What companies are looking for is clarity, not complication.
What they’re looking for synergy, not silos.
What they’re looking for are places where federal partners are working with state partners and local partners to create the kinds of conditions where they can confidently invest money and jobs.

I know that creating this ecosystem can be difficult.

Congress has become an increasingly unreliable partner as we've seemingly forgotten how to run a regular appropriations process and effectively fund the government. And now we see federal research dollars and work and education visas thrown into disarray.
My father came here on a foreign student visa and stewarded federal research dollars to try and cure cancer and Alzheimer's. Many other families have or aspire to these stories.

And here in NJ we are in the middle of a government transition at the state and local level, and that transitioning government will face real challenges here.
That's why I'm so excited to see Governor-Elect Sherrill as a true partner in this cause. The development of this Einstein Corridor was my top priority as I sat down with Governor-Elect Sherrill and I hope she will join us in this endeavor.As I shared with her, the mission to make New Jersey more affordable requires New Jersey to be more innovative. The two go hand in hand. The more we innovate, the more we can draw in investments to support not just our businesses, but our schools, our communities, our transit and infrastructure. All of us working together, we can become a magnet for federal-scale investment.

We should be increasing federal investments, not gutting them and shooting ourselves in the foot. I helped pass the Chips and Science Act, and I'm now working on a 2.0 version of industrial policy that will lift up other key industries. I want to engage all of you on how we can do this best. What do you need to be able to do your best work.

There is so much funding from the Department of Energy, the Department of Defense, the National Science Foundation and others that we can better work together to attract and fuel innovation.

New Jersey is a finalist for the National Science Foundation Regional Innovation Engine Competition – a competition that if we win, will bring new resources to our state.
The Princeton Plasma Physics Laboratory has been awarded two highly competitive projects by the Department of Energy from the CHIPS and Science Act, bringing a total of $24 million to our state.

And Joint Base McGuire-Dix-Lakehurst recently received a second Air National Guard Cyber Operations Squadron, making it one of the few bases in the country with two cyber squadrons. This is a good start, but there is so much more that we need here in New Jersey to reach our potential. I want the coming years to be the most productive era of federal investment in our state.

I want New Jersey to get more sophisticated in attracting and retaining businesses. No longer should we be outshined by other states in developing incentive packages, workforce programs, university partnerships, federal resources, and other elements that help innovators make up their mind of where to invest.

These things should be done together – in coordination – at all levels of government.

Together, we can create turnkey infrastructure.In the spirit of Hamilton and Paterson, we can look at creating new advanced manufacturing hubs – especially in places like South Jersey, where I'm from – built around pre-permitted sites to help cut red tape that sometimes keeps investments away.
And together we can create a unified brand to the world – so that whenever any of us travels, New Jersey travels with us.

So that whenever any of us presents our latest findings or a proposal for new funding, New Jersey presents with us. So that whenever any of us discovers a new cure or a new element, creates a new technology or builds something we never thought possible, New Jersey is discovering, creating, or building.I know we can build this Einstein Corridor, because I see the elements every day.These are our strengths. They are things we are already doing as a state, but can supercharge and better build on one another to create that interconnected ecosystem that makes up this Corridor.

It starts right here with the work you're doing on AI and data science.
Built onto that is one of the biggest talent pools in the country – more than 160 thousand computer and math professionals here in our state.
And existing infrastructure from companies like CoreWeave to the New Jersey AI Hub connecting Princeton, Microsoft, CoreWeave, and the New Jersey Economic Development Authority.

I look at the work being done in Photonics – a field essential to everything from AI to medical devices to quantum to national security.
New Jersey has the highest density of photonics companies in the world, but that is a story we don't do a good enough job telling.
Companies like ThorLabs and Edmund Optics have been innovation leaders while NJIT has an actual Center for Photonics Innovation. This sector is ripe for New Jersey to not just compete, but dominate.

Speaking of quantum, New Jersey should be America's quantum computing capital.
We have more than 30 faculty embedded in two Department of Energy National Quantum Centers.
Rutgers, Princeton and Stevens all have incredible quantum programs and from them we are building a workforce that could unleash the power of quantum and spark a generation of advancements.

Every company leading on quantum computing, every scientist working to advance quantum technology, every major government funding opportunity – New Jersey should be its home. I am pushing for a Manhattan project style federal investment to give our nation the upper hand in this global competition that we are currently not strong enough in. And I want that investment to be built right here in New Jersey.

China is currently surpassing our nation on so many fronts in biotech and advanced materials. It's time to find another gear, and that starts right here in New Jersey.
Eight of the top ten global biopharma companies: based in New Jersey.
Our universities deliver over $1 billion in annual research and development and have more than 1,200 active patents.

And companies like BASF, Solvay, DuPont, and EMD Electronics position New Jersey to be leaders in the supply chains for semiconductors, clean energy, and biomanufacturing.

And on the manufacturing side, you've got an industry that is reemerging in New Jersey – shipbuilding. You can see the Hanwha shipyard in Philadelphia from across the river.
America needs to build ships. Why not build them along the Delaware River? Why not build them in New Jersey? We have ports ready to go, and I'm in touch with leading shipbuilding companies to try and strike a deal.

On top of the incredible industries based in our state, you've got a truly remarkable federal government presence. Joint Base McGuire-Dix-Lakehurst, Picatinny Arsenal, Naval Weapons Station Earle, and the FAA Tech Center doing cutting edge aviation modernization and safety in Atlantic County – so few places combine air, land, and sea assets into one state. Assets that are themselves incubators for innovation and power ecosystems of small businesses of jobs.
Assets that can help power this corridor.
And finally, in order to attract and retain businesses and talent, we need to strengthen New Jersey as a desirable place to live, from ambitious college grads hungry to jumpstart a career, to professionals seeking to build a family.

It's the place my parents – Korean immigrants – moved to four decades ago to build a life for me and my sister. My dad, a medical researcher. My mom, a nurse. From the revitalization of our urban areas, to the exciting development on our beautiful shore, to the investments we need to make to build a 21st century transit system, we have to show the progress of our state.

At the end of the day, that is our goal. The Einstein Corridor isn't just an idea to get companies and government programs to invest in New Jersey, it's an idea to get people to invest in New Jersey. To reverse the brain drain that leads less than 40 percent of high school graduates to stay in state for college.

It's an idea that says if you want to build something, build it in New Jersey.
If you want to invent something, invent it in New Jersey.
If you want to discover something, discover it in New Jersey.

The world is changing, but it's not the first time.
From Alexander Hamilton to Thomas Edison.
From Alice Parker to Arthur Nobile
From Beatrice Alice Hicks to Albert Einstein.
New Jersey has led that change.

Who will be next on that list?
Through this Einstein Corridor, those in this room, and this generation to come will restore New Jersey's place as the invention and innovation capital.
You will remind the world the words scrawled on the Lower Trenton Bridge – that when it comes to the future, New Jersey Makes, and the World Takes. Thank you.

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