

CELEBRATING IRVINE INNOVATORS

2023





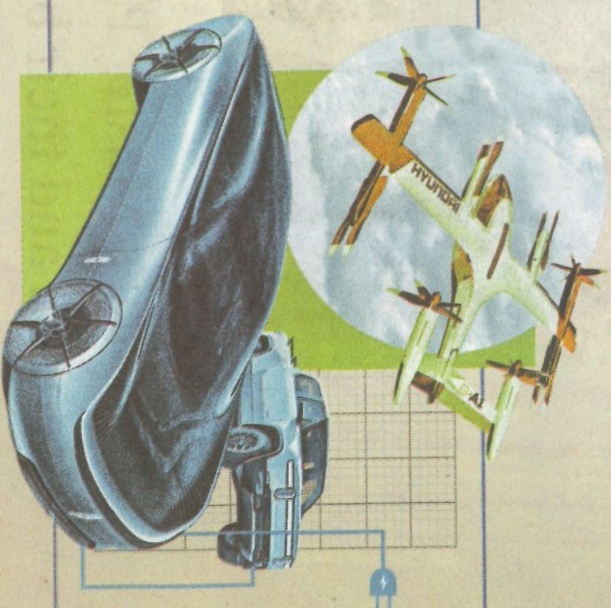
→ Irvine plays as hard as it works, which is why it's also a leader in the \$150 billion annual video game industry. **Blizzard Entertainment's** \$9.2-billion-grossing World of Warcraft has been called the world's best online role-playing game. **Oculus VR** created one of the world's first VR headsets,

the Oculus Rift, while **Ready at Dawn's** Lone Echo pioneered virtual-reality adventure gaming. Now known as Gamer's Gateway, Irvine is also home to **Sega, Amazon Game Studios** and **Frost Giant**.

TRANSPORTATION

→ The future of transportation is literally taking off in Irvine, where the **Hyundai Motor Group** recently unveiled a plan to produce a flying taxi by 2028. Irvine is also home to **Rivian**,

hailed as the Tesla of trucks, and a host of other major auto companies – including **Ford, Kia, Volvo, Karma** and **Mazda**, which designed the bestselling sports car of all time right here in Irvine: the Miata.



ALTERNATIVE ENERGY

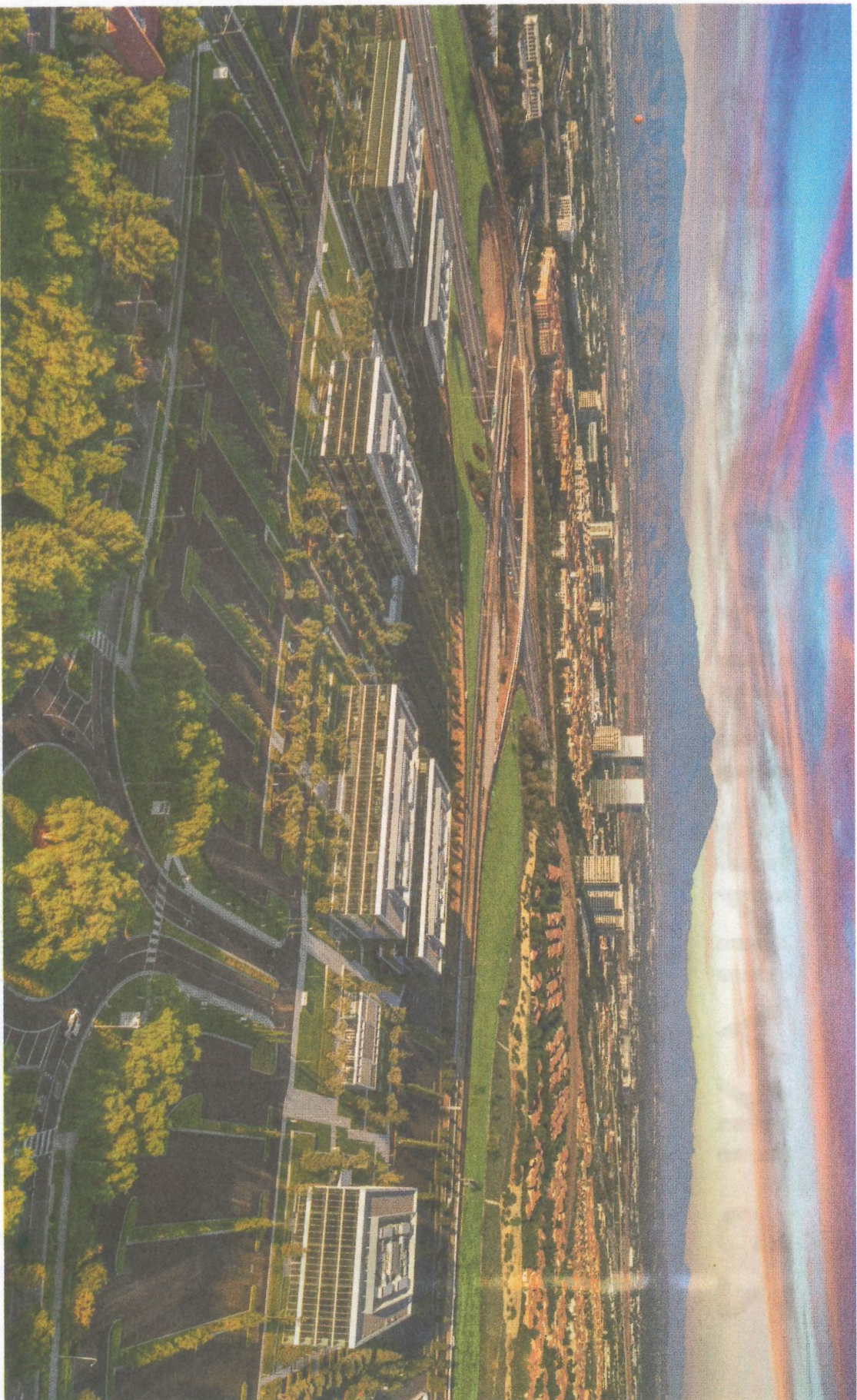
→ Sunny Irvine is also helping to lead the way to potentially historic progress in harnessing solar power from space. **Irvine Company**

Chairman Donald Bren has contributed over \$100 million to

Caltech's Space Solar Power Project, which promises to be a major breakthrough in the global quest for clean, abundant and

affordable energy. Irvine Company also has created the world's first fleet of hybrid-electric high-rise office buildings, installing **Tesla** Powerpack batteries that reduce peak-hour power demand by 25%. At **TAE Technologies**, founded by the late **UCI** professor Norman Rostoker, engineers hope to harness nuclear fusion that can create nearly unlimited amounts of renewable energy.





With majestic views of olive and pine trees, an Olympic-length swimming pool and an indoor-outdoor fitness center, Spectrum Terrace is one of Irvine's most elegant and luxurious new office campuses. Fortune 500 companies say it's easier to get employees back to work with amenities like these.

"Communities around the country see Irvine as the gold

standard. They are looking at the mixed-use areas, like

LAUNCHED AT UCI

Ta, the co-founder of that online farmers market, discovered some of the many ways Irvine supports entrepreneurs from the first day he arrived on the

data and analytics. Students should be learning data skills, and educators should understand that data skills are a life skill, not just for a few in business or government."

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TOSHIKI TAJIMA

*Chief science officer,
TAE Technologies*

Tajima leads a team of UCI-educated scientists pursuing fusion power with a unique reactor that produces no neutrons. They recently took a quantum leap forward, resulting in an additional \$280 million in funding from investors such as Google. If materialized, fusion reactors can produce nearly unlimited amounts of renewable energy that generates no radioactive waste. **IN THE NEWS:**



Tajima

pipettes. **IN THE NEWS:** Archytas moved into Irvine's Spectrum District in November 2020 and has already helped small- and medium-sized firms save money by having Dexter do their menial tasks. Last October, the company won the BASF Forward AM Innovation Award in Barcelona, for startups using additive manufacturing. **IN THEIR WORDS:** "I've been around manufacturing assembly plants, and I can tell you that repetitive injuries are common and that very few people wake up every day and say 'I can't wait to go put a label on a bag.'" Caswelch says.

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TIM MORTEN

*CEO and co-founder,
Frost Giant Studios*

TAE, founded in 1998 by a UCI professor, is now building its next-generation fusion reactor, named Copernicus. **IN HIS WORDS:** "Because of my mentor's groundbreaking work and our accomplishments this year, Irvine has become one of the epicenters of fusion energy research."

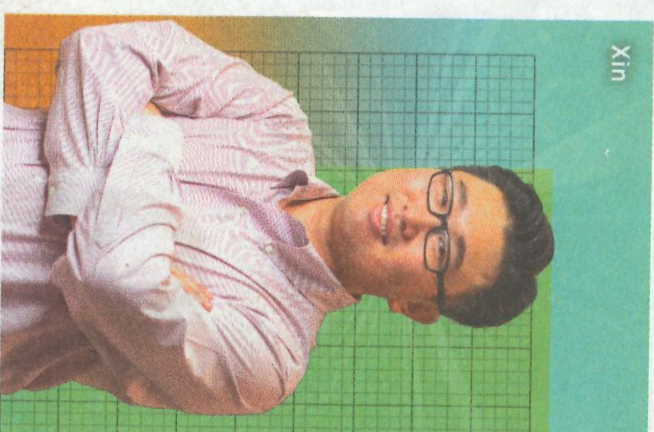
Former Blizzard developer Tim Morten co-founded Frost Giant Studios in October 2020 to revitalize the RTS, or real-time strategy, genre of games. He raised over \$35 million in funding and last summer debuted Stormgate as a worthy successor to past genre greats. **IN THE NEWS:** Since Frost's move to Innovation Office Park, a half-dozen video game firms have followed suit, earning Irvine (already home to Blizzard and Ready at Dawn) the new moniker Gamer's Gateway.

IN HIS WORDS: "What the RTS genre lacked was a modern, free-to-play game with strong social features. We believe Stormgate brings this genre back into the spotlight where it belongs."

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HUOLIN XIN

*Professor of physics and
astronomy, UC Irvine*



Xin

Xin is a principal investigator in a Department of Energy-funded project to improve lithium-ion batteries. His team recently found a way to fabricate them without using cobalt, a rare and costly mineral often mined under inhumane conditions. **IN THE NEWS:** In January, Xin's team published a report in Nature Materials that found nickel to be a promising replacement for cobalt in next-generation batteries. **IN HIS WORDS:** "Electric vehicle manufacturers are eager to curtail the use of cobalt in their battery packs, not only for cost reduction, but it's

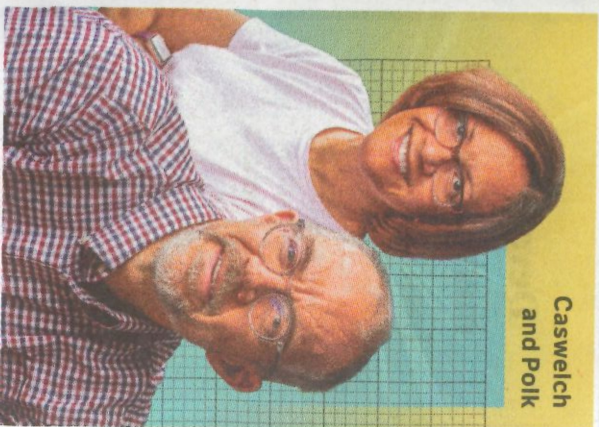
Caswelch
and Polk

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KAREN CASWELCH AND RYAN POLK

Founders, Archytas Automation

Irvine innovators Caswelch and Polk created "Dexter," a robot that can drive down the cost of automation by as much as 50%. Dexter's 200 parts can be made with a 3D printer before humans assemble and program it to perform rote tasks like bag-



ging coffee and cleaning laboratory