

# **INFORMATION TECHNOLOGY & IOT** MARICOPA IS CONNECTED

Information technology thrives in Maricopa, a young city that has come of age in the 21st century. Incorporated in 2003, Maricopa's young population, new and modern infrastructure, and business friendly climate continue to advance the city's commitment to building a thriving, competitive and innovative community.

Propelling this progress are Maricopa's residents. The city has one of the most diverse populations in Arizona and a median age of 33.6. Residents also are highly educated, with nearly 65 percent having some college and 25.3 percent holding a bachelor or graduate degree.

Maricopa is also a place where families and professionals want to live because of the city's top rated traditional public and charter schools and home prices that are less than the Phoenix Metro region. Maricopa also is beautifully suited for those who love the outdoors with our growing parks and recreation system and easy access to all of the hiking trails in the Phoenix region.







Strategically located less than 45 minutes from Downtown Phoenix, Maricopa offers existing and emerging firms the full range of expertise and support available from universities, research labs and other resources in the Greater Phoenix region. The city's close proximity to two international airports, two major interstate highways and the Phoenix Metro's only Amtrak passenger rail station all combine to provide access to global markets as well as to the region's 2.5 million skilled workforce.<sup>1</sup>



<sup>1</sup> https://www.bls.gov/eag/eag.az\_phoenix\_msa.htm; https://www.azeconomy.org/data/phoenix-mesa-scottsdale-msa-2/



# **INNOVATION IN ARIZONA**

Arizona's business and government leaders know how to stay on the cutting edge and continue to make commitments to build the infrastructure and workforce necessary to support the future of IT and IoT. The state's elected and economic development leaders are sought-after thought leaders in national and international trade and development organizations including the Global City Teams Challenge Smart Region Collaborative<sup>2</sup>, the Dell Technologies World Conference<sup>3</sup>, and the European Commission's 100 Intelligent Cities Challenge Second City Lab<sup>4</sup>, demonstrating our zeal to work on the future today. Arizona was the first state to allow autonomous vehicle testing on its roads, and municipalities in the Phoenix region are deploying new traffic management systems. These are just two of many examples of the state and region's open-door policy to innovate and work with the private sector to leverage new technologies and advance economic growth.

Innovation cannot happen without the right infrastructure, environment and programs. Phoenix has the fifth largest concentration of data centers in the U.S. which is critical to supporting the IT and IoT industries. Affordable land and power, favorable weather and the absence of natural disasters mean the region will continue to support data center development<sup>5</sup>. Additionally, Arizona leads the nation in streamlining deployment of small cell technology for 5G. The Arizona Commerce Authority (ACA) supports innovative entrepreneurs through the Arizona Innovation Challenge<sup>6</sup> and Venture Ready program<sup>7</sup>. Arizona's elected officials consistently make forward-thinking investments that foster innovation across all economic sectors.

The Greater Phoenix Smart Region Initiative, also known as The Connective<sup>8</sup>, is a public-private partnership that includes the Arizona State University (ASU) Center for Smart Cities and Regions, the Arizona Technology Council, and the Arizona Institute for Digital Progress. The Connective is coordinating with local governments and innovators and has launched an internal innovation platform to track the implementation of smart city technologies throughout the region. Our region's technology and public sector leaders realize the importance of working together and are fully committed to building the necessary partnerships to support economic growth. Maricopa is an active partner in the Connective and an early adopter of smart city technology.

ASU also continues to be ranked the #1 School for Innovation<sup>9</sup> and pushes the envelope on new technologies and workforce development. This innovative spirit runs through our entire economy as we build our state's future.

<sup>&</sup>lt;sup>2</sup> https://smartregionsconference2018.sched.com/

<sup>&</sup>lt;sup>3</sup> https://www.govtech.com/fs/automation/Traffic-Signals-in-Vegas-Could-Soon-Have-a-Mind-of-Their-Own.html

<sup>&</sup>lt;sup>4</sup> https://www.intelligentcitieschallenge.eu/events/2nd-icc-city-lab

<sup>&</sup>lt;sup>5</sup> https://www.datacenterdynamics.com/en/news/cbre-us-data-center-market-grow-138-2021/

<sup>&</sup>lt;sup>6</sup> https://www.azcommerce.com/programs/arizona-innovation-challenge/about/

<sup>&</sup>lt;sup>7</sup> https://www.azcommerce.com/programs/venture-ready

<sup>&</sup>lt;sup>8</sup> https://www.greaterphxconnective.com/

<sup>&</sup>lt;sup>9</sup> https://www.usnews.com/best-colleges/rankings/national-universities/innovative



### **ARIZONA'S FINTECH SANDBOX**

In 2018, Arizona became the first state to create a regulatory sandbox for financial technology companies<sup>10</sup>. Companies experimenting with blockchain and cryptocurrency often face extensive regulatory barriers, but Arizona legislators and policy makers move at the pace of emerging technologies and have consistently lowered barriers to market access for such companies.

The sandbox provides entrepreneurs and established companies a minimum of two years to release and test innovative financial products<sup>11,12</sup>. Typically, these innovative companies would pay expensive legal, compliance and other fees to test their products, while in Arizona they only pay \$500 to participate in the sandbox<sup>13</sup>.

Arizona's forward-thinking governance allows companies to continue to innovate to best serve their customers. Arizona did not stop at a FinTech sandbox; we also created a sandbox for property technology companies in 2019<sup>14</sup>. Property technology has the potential to make managing and transferring property easier and less costly, but these companies need an environment where they can test their products. The property technology sandbox provides the ability to test these new products while still protecting consumers<sup>15</sup>. Arizona knows working with innovators to create new technologies and consumer experiences is the key to continued growth and success.







<sup>10</sup> https://www.forbes.com/sites/astanley/2018/03/23/arizona-becomes-first-u-s-state-to-launch-regulatory-sandbox-for-fintech/?sh=5c60e58e1372

- <sup>12</sup> https://azbigmedia.com/business/technology/heres-how-arizonas-fintech-sandbox-will-boost-the-economy/
- <sup>13</sup> https://www.gpec.org/blog/things-to-know-about-arizonas-fintech-sandbox/

<sup>&</sup>lt;sup>11</sup> https://www.gpec.org/blog/things-to-know-about-arizonas-fintech-sandbox/

<sup>&</sup>lt;sup>14</sup> https://www.gpec.org/blog/in-this-sandbox-nobodys-playing-around/

<sup>&</sup>lt;sup>15</sup> https://www.bizjournals.com/bizjournals/news/paid-content/growing-arizona-2019/2019/these-arizona-sandboxes-arefor-playing-out.html

# **IT COMPANIES IN ARIZONA**

More than 2,000 IT companies already call Arizona home<sup>16</sup>. GoDaddy, Intel, WebPT, Infosys, Norton LifeLock and scores of other IT firms realize the benefits of having locations in Arizona, including access to a competitive and highly skilled labor force, lower operating costs and access to quality transportation infrastructure. Arizona employs over 30,000 people in IT related firms and occupations and is in the top 10 states for employment in semiconductor and electrical component manufacturing<sup>17</sup>. Arizona combines the best in computing innovation, software development and manufacturing.

#### IT Occupations in the Phoenix Region and Arizona

Occupation	Phoenix Region <sup>18</sup>	Arizona <sup>19</sup>
Software Publishers <sup>20</sup>	5,592	8,459
Data Processing and Hosting <sup>21</sup>	9,125	10,366
Computer Systems Design <sup>22</sup>	9,997	13,803
Other Computer Related Services <sup>23</sup>	3,961	4,174
Semiconductor and Electronic Manufacturing <sup>24</sup>	8,439	8,991

(Source: 2019 County Business Patterns Survey)

Maricopa is particularly well-suited to support the state's growing IT industry. Sixty-two percent of the city's labor force are employed in professional jobs, including business operations, finance and IT. The city is within very close proximity to ASU's three main campuses and driving distance to the University of Arizona. This affords industry ease of access to two top-tier research universities and leading R&D. This connectivity allows easy access to Maricopa, the local and regional workforce, innovation and national and international markets.



<sup>&</sup>lt;sup>16</sup> 2019 County Business Patterns Survey (NAICS Code 5415)

<sup>&</sup>lt;sup>17</sup> 2019 County Business Patterns Survey (NAICS Codes 5415 and 33441)

<sup>&</sup>lt;sup>18</sup> 2019 County Business Patterns Survey for Arizona-Mesa-Scottsdale MSA

<sup>&</sup>lt;sup>19</sup> 2019 County Business Patterns Survey

<sup>&</sup>lt;sup>20</sup> NAICS Code 511210

<sup>&</sup>lt;sup>21</sup> NAICS Code 518210

<sup>&</sup>lt;sup>22</sup> NAICS Code 541512

<sup>&</sup>lt;sup>23</sup> NAICS Code 541519

<sup>&</sup>lt;sup>24</sup> NAICS Code 33441



# **ENGINEERING EDUCATION IN ARIZONA**

Arizona's Board of Regents (BOR) oversees three top tier research universities, all with Colleges of Engineering:

- Arizona State University (ASU)
- University of Arizona (UArizona)
- Northern Arizona University (NAU)

Additionally, Grand Canyon University (GCU), located in Phoenix, and University of Advancing Technology (UAT), located in Tempe, have multiple undergraduate and graduate engineering programs. UAT is one of the few universities in the country dedicated solely to STEM degrees with programs in artificial intelligence, data science and network engineering.

This robust educational ecosystem means Arizona's workforce is on the cutting edge. In the 2018-2019 school year alone, 3,144 and 2,424 undergraduate degrees were awarded to engineering and computer science graduates, respectively, at Arizona's universities<sup>25</sup>. In the same year, 1,364 and 929 master's degrees were awarded to engineering and computer science graduates, respectively<sup>26</sup>.

<sup>&</sup>lt;sup>25</sup> U.S. Department of Education, National Center for Education Statistics Table 319.30: Bachelor's degrees conferred by postsecondary institutions, by field of study and state or jurisdiction: 2018-19

<sup>&</sup>lt;sup>26</sup> U.S. Department of Education, National Center for Education Statistics Table 319.40: Master's degrees conferred by postsecondary institutions, by field of study and state or jurisdiction: 2018-19



### **CYBERSECURITY EDUCATION IN ARIZONA**

Cybersecurity is critical to the future of the IT and IoT industries. As well, the public has a growing awareness of the need to protect their personal information and data and this will only increase in importance as people increasingly integrate more and more connected devices into their lives.

Arizona's universities and community colleges have multiple degree programs in cybersecurity. Maricopa and Pima County Community Colleges have Associate Degree programs in IT and Power Systems Security and Cybersecurity, respectively. Within the Maricopa Community College system, Estrella Mountain Community College and Glendale Community College were designated National Centers of Academic Excellence (NCAE) in Cyber Defense by the National Security Agency and the Department of Homeland Security<sup>27</sup>.

Combined, ASU, UArizona and GCU also hold NCAE designations in cyber defense education, research and operations<sup>28</sup>. These designations mean the state provides opportunities for cybersecurity degrees at all levels: Associate, Bachelor and Master. These cybersecurity professionals support Arizona's existing IT firms and are prepared to support the future of IoT in the state. Let's not forget, over the past five years Arizona's universities have on average conferred over 1,000 bachelor's degrees in computer science each year, providing the essential backbone for IoT innovation and security<sup>29</sup>.

Arizona's robust cybersecurity education ecosystem attracts the best in cybersecurity firms and startups. SiteLock, Mosaic451 and Avertium all have locations in the Phoenix region<sup>30</sup>. Arizona is also home to the Army Network Enterprise Technology and a regional center for U.S. Army Cyber Command<sup>31</sup>. These key cyber operations are enabled by Arizona's highly educated workforce and forward-thinking educational institutions.

<sup>&</sup>lt;sup>27</sup> https://www.nsa.gov/resources/students-educators/centers-academic-excellence/

<sup>&</sup>lt;sup>28</sup> https://www.caecommunity.org/cae-institution-map

<sup>&</sup>lt;sup>29</sup> Data USA: Computer and Information Sciences Support Services, https://datausa.io/profile/cip/computer-and-information-sciences-and-support-services

<sup>&</sup>lt;sup>30</sup> https://www.bizjournals.com/phoenix/subscriber-only/2019/01/18/largest-phoenix-area-cybersecurity.html

<sup>&</sup>lt;sup>31</sup> https://www.arcyber.army.mil/Organization/About-Army-Cyber/



### WHY MARICOPA?

Arizona continues to be the first in the nation for supporting innovation. From autonomous vehicle testing to lowering barriers to market access for new technologies, Arizona will continue to welcome disruption and innovation.

The future of IT and IoT relies on a creative workforce and favorable business climate that supports innovation and growth. Maricopa is already home to a highly educated workforce and our city and regional leaders continue to work with the private sector to spur capital investment and job growth. Maricopa's top-ranked public schools, access to advanced research institutions and proximity to the regional workforce enable us to support the knowledge economy. As companies consider the future of work, Maricopa has the space to continue supporting business growth and providing employees flexibility in how and where they chose to work. Our population continues to grow because people want to access the city's amenities and abundant, well-priced quality housing options. People want to live and work in Maricopa and they are the workforce that supports today's as well as the next generation of IT innovation and growth.

#### Are you ready to benefit from The Maricopa Advantage?

Contact the Maricopa Economic Development Alliance (MEDA) to start the conversation today! Please visit WhyMaricopaAZ.com.

#### Your best future is here.



