

FLORIDA ATLANTIC UNIVERSITY



UNIVERSITY OF DISTINCTION PROPOSAL

Applied Artificial Intelligence / Big Data Analytics (“A.I./Data”)

Update on FAU100 FY 2019-20 Funding Allocation
Legislative Budget Request, FY 2020-21

Florida Board of Governors • October 2019

FAU 100



FLORIDA ATLANTIC UNIVERSITY

2019. FAU sought the resources to sustainably accelerate its improvement and join the list of *U.S. News & World Report's* Top 100 Public Universities.
2020. *U.S. News & World Report* ranked FAU as a Top Public School in the nation for the **first time in the university's history**



- **#140** (tied) Top Public Schools
- **#45** (tied) in nation for social mobility → **New ranking**
- **#45** (tied) for campus ethnic diversity
highest in SUS for third year in a row



- 2019 *The Chronicle of Higher Education Almanac*
Ranked highest for campus ethnic diversity in SUS



South Florida Sun Sentinel
@SunSentinel

FAU lands spot on U.S. News college rankings - South Florida Sun-Sentinel trib.al/46gbPS0



WPEC CBS12 News
@CBS12

Way to go, FAU!!



FAU makes list of top public schools in nation for first time
A first for FAU. Florida Atlantic University is ranked by U. S. News & World Report as one of the top public universities in the nation. The distinction is th...
cbs12.com



BOLDNESS

Undergraduate Recruitment Scholarships

\$3M	\$1M	\$1.9M
Original Ask	State Funding	FAU Funding

Graduate Student Stipends & Benefits

\$3M	\$0	\$1.8M
Original Ask	State Funding	FAU FY21

Expanded Summer & 3-Year Degrees

\$1M	\$1M	\$600K
Original Ask	State Funding	FAU Funding

SYNERGY

Instructional & Research Faculty

\$4M	\$4M
Original Ask	State Funding

Annual Research Seed Grant Funding

\$3M	\$1M
Original Ask	State Funding

Infrastructure & Core Facilities

\$2M	\$2M
Original Ask	State Funding

BRAND

Benchmarking Platform

\$300K	\$300K
Original Ask	State Funding

- e.g. Empowering FAU to fund cutting-edge technology solutions, such as *Civitas Learning* modules (Predictive Analytics)

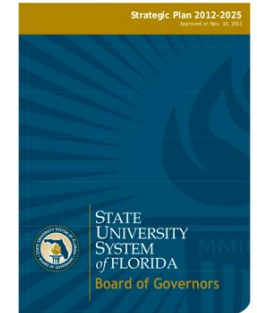


"This is just the beginning of our ascension into the top ranks of public universities in the United States as we continue to build on our successes and focus on strategic areas of improvement." - @FAUpresident



Applied A.I. / Big Data Analytics

- Building a **University of Distinction** by
 - enhancing and expanding degree offerings
 - continuing to lift FAU's reputation in AI/Data research
 - promoting AI/Data-driven engagement with industry
- Platform in FAU's *Strategic Plan for the Race to Excellence*
- Aligns with SUS 2025 strategic plan & accountability plans
- Supports recommendations from state workforce reports





A.I. / Data Strong Foundation at FAU

“Big Data Analytics” was designated in 2015 as a Strategic Plan Platform

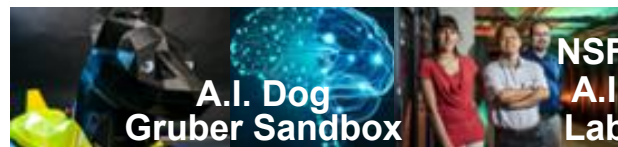
ACADEMIC PROGRAMS

- **8 AI/Data programs**, including BS, MS, certificates, and tracks
 - MS in A.I. (first in FL)
 - MS in Data Science
 - BA/BS → MS in comp. science & IT (analytics)
 - PhD w/ analytics track
- **Proposed** - BS in Data in Jupiter



RESEARCH

- **More than doubled** FAU's total research exp. → \$70M in FY19
- **\$35M** in active AI/Data grants throughout entire university
- **Over 80 research faculty** currently working in AI/Data
- **Florida's first NSF-funded Lab** for A.I. and Deep Learning



INDUSTRY

- **1,400 tech firms** in PBC
 - Business Development Board
- **80,000 employees** in region
 - South Florida TechGateway
- **21,716 new jobs** in FL by 2026
 - Florida Dept. of Econ. Opp.
- **Up to 190K** worker shortage in US
 - McKinsey Global Institute





A.I. National Priority for Workforce & Research

Data Science workforce growth

National projections	EMPLOYMENT		CHANGE 2018-2028		MEDIAN SALARY
	2018	2028	NUMBER	PERCENT	
Total U.S. Data Science	3,318,400	3,810,100	491,700	14.8%	\$103,859

Source: Bureau of Labor Statistics

+1.5% national annual growth

State and local projections	EMPLOYMENT		CHANGE 2018-2026		MEDIAN SALARY
	2018	2026	NUMBER	PERCENT	
Florida Data Science	133,984	155,700	21,716	16.2%	\$86,821
Palm Beach Data Science	7,968	9,353	1,385	17.4%	\$93,311
Broward Data Science	14,590	17,245	2,655	18.2%	\$88,645

Source: FL Dept. of Economic Opportunity

+2% state/local annual growth

Federal A.I. research growth

- President Trump has directed federal agencies to “promote sustained investment in AI R&D” in partnership with higher education institutions
 - Executive Order No. 13,859, 84 Fed. Reg. 3967 (February 14, 2019)
- “A diverse information technology workforce can lead to improved outcomes”
 - National Science and Technology Council’s *Artificial Intelligence Research and Development Strategic Plan*





Boldness - a uniquely competitive and globalized student body (recurring)

\$2.8M	Employment-based student incentives
\$1.2M	Success networks for undergraduate students
\$4.4M	Enhanced instruction via graduate students

Synergy - prominent teams of researchers and scholars (recurring)

\$1.4M	Institute for Artificial Intelligence, Autonomy, and Data Analytics (ArlADA)
\$1.0M	Institute for Sensing and Embedded Network Systems Engineering (I-SENSE)
\$2.0M	Harbor Branch Oceanographic Institute (HBOI)

\$12.8M Recurring request

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Synergy - prominent teams of researchers and scholars (nonrecurring)

\$3.0M	Jupiter High Performance Computing (HPC) - AI/Data processing
\$0.5M	Fort Lauderdale Media Technology and Entertainment (MTE) Lab for AI integration with virtual/augmented/extended reality
\$1.8M	AI Robotics Testbed - Ocean/sea-surface/ground/air

\$5.3M Nonrecurring request

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**Total
Request
\$18.1M**



Measures of Success

- **Year-one accomplishment** → AI/Data enrollments
 - a. Student credit hours in AI/Data courses
 - b. Headcount in AI/Data programs
- **ROI** → AI/Data student outcomes
 - a. Degrees awarded in AI/Data
 - b. Median salary of graduates from AI/Data programs
 - c. Percent of graduates employed from AI/Data programs
- **Year-one accomplishment** → AI/Data research grant proposal
- **ROI** → AI/Data research expenditures
- **Ranking** → *US News and World Report* AI program ranks
- **Ranking** → Work with industry to establish new ranking system for applied AI/Data research, corporate contracts, and collaborations

FAU is well positioned to **lead** in the world's 4th industrial revolution – **Applied A.I. and Big Data Analytics**

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