2022-2023 Highlights
OUR PURPOSE.
OUR LEGACY.

Progress Toward: The 2020-2025 University of Florida Strategic Plan for IT

UF | Information Technology
UNIVERSITY *of* FLORIDA

Elias G. Eldayrie
Vice President & CIO
eldayrie@ufl.edu

Information security begins with each of us who connect inside the UF ecosystem, from the initial application for admission to our committed alumni and lifelong learners. UF Information Technology has long had a mantra that *information security is our shared responsibility*, with information security at the foundation for all we do in support of the university's core mission.

Faculty and staff receive annual reminders to complete UF's mandatory security awareness training, but I encourage everyone to take it as soon as they can. Links to the training are midway down this page for faculty and staff as well as students, who can elect to take the phishing module: *https://go.ufl.edu/vluui2y*.
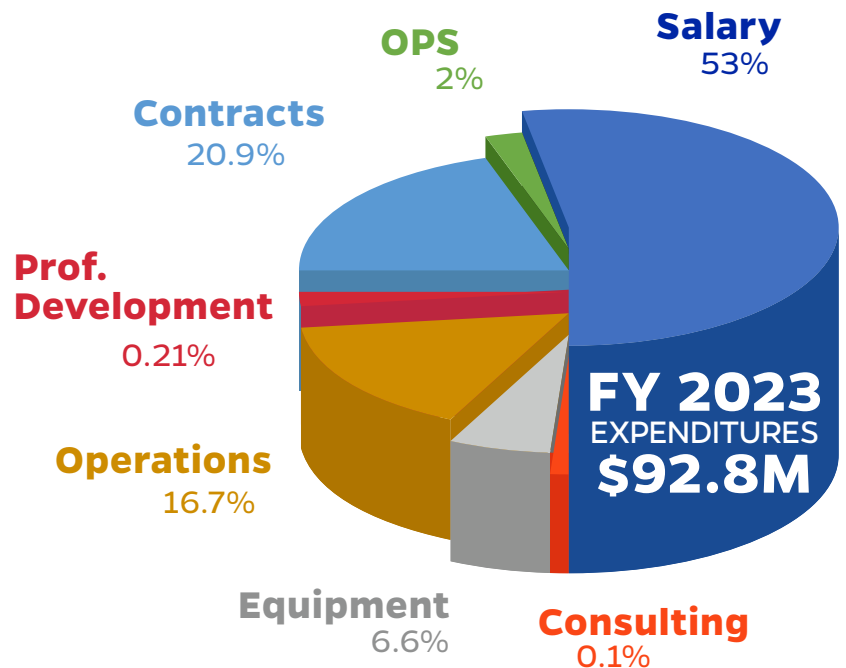
An incredible advancement in UF's security environment occurred this spring, when the HiPerGator supercomputer earned HITRUST certification. The assessment required wide-ranging testing and an extensive review of UF's hardware, systems, networks, software, staff procedures, and processes. HITRUST enables UFIT to support research projects utilizing personal health information and other restricted data, keeping UF at the forefront of research and discovery.

It is the collective commitment of our people, processes, and technology that secures the university. Thanks for doing your part to secure our information and protect The Gator Nation!

Go Gators!

Transforming UF: Achievements in FY 2023

- Developed training and events for campus to embrace the seismic eruption of *generative AI*

- Earned *HITRUST certification* for HiPerGator, enabling research with PHI

- *Completed 194* projects enhancing UF systems

- Delivered the planning and framework for new *ERP three-year implementation*

- Provided extensive risk management, policy development, and cyber analysis to *secure UF*

OPS 2%

Salary 53%

Contracts 20.9%

Prof. Development 0.21%

Operations 16.7%

Equipment 6.6%

Consulting 0.1%

FY 2023 EXPENDITURES $92.8M

HITRUST Certification

HiPerGator joins an elite group of university supercomputers that has earned the HITRUST r2 certification. HITRUST certification confirms UF meets all international security and compliance requirements for data protection and can process large amounts of restricted data and personal information, including patient health information (PHI).

HITRUST certification is a way for universities, scientific organizations, and others to demonstrate that specific systems within their environment meet the framework's rigorous standards and requirements. To achieve certification, independent assessors perform extensive testing and verification of hardware systems, networks, software, procedures, and processes to ensure the system operates as described in documentation and policies. The HITRUST r2 assessment level is the most strenuous review available and provides the highest level of assurance for organizations to manage their risk.

HiPerGator went online in 2013 for research on open data. The HiPerGator-RV enclave has been NIST 800-171 certified and NIST 800-53 compliant since 2017.

> *"Dear Erik, thank you once again for your support and the fantastic effort put into obtaining the HITRUST certification. This is indeed a remarkable and extraordinary achievement."*

MASOUD ROUHIZADEH

Assistant Professor, Department of Pharmaceutical Outcomes and Policy, AI in the Health Sciences Initiative | College of Pharmacy
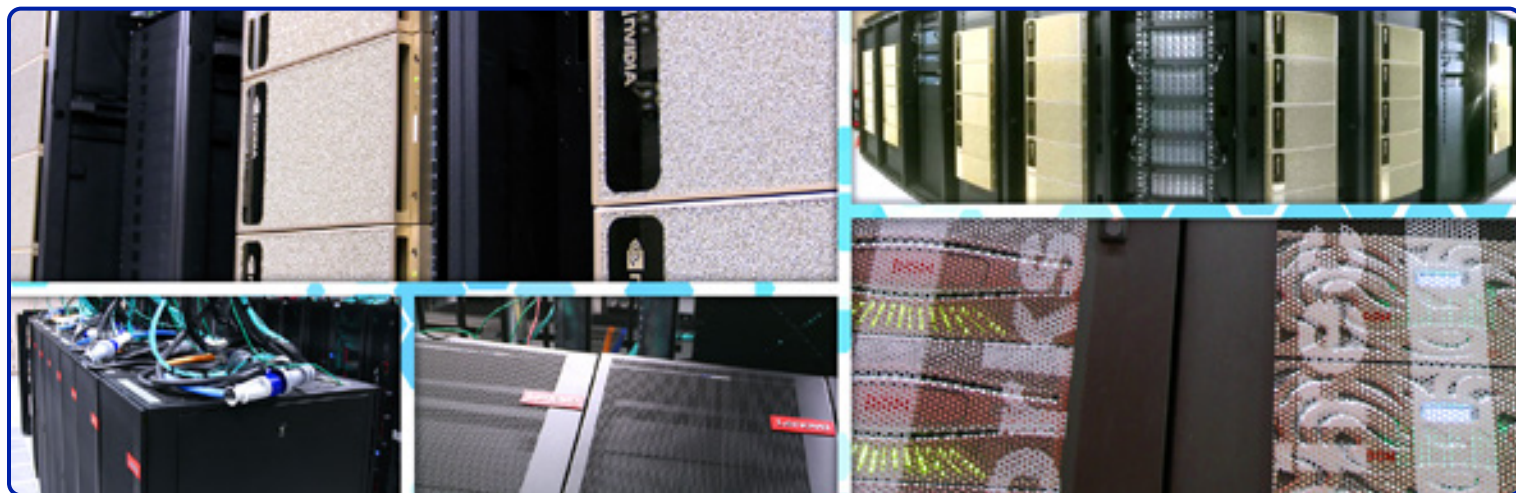
> *"I just wanted to thank you for organizing the tour of the Data Center yesterday. It was awesome! Dr. Erik Deumens is quite impressive, and I really enjoyed hearing about HiPerGator from him. The work you all are doing is incredible!"*

MORGAN MARVIN
Director, Strategic Communications and Marketing, College of Public Health and Health Professions

> *"I wanted to express appreciation and recognize the outstanding performance of your team. As you are aware, in recent weeks we have transitioned to a new third-party food services provider and a new third-party ID Card Services provider. Thank you to your team for their support of our new Gator 1 Card database/transaction system and for the technology solutions required by the new food services provider. Those projects were introduced with a very short timeframe for implementation. The following staff were instrumental during the projects: John Madey, Chris Stowe, Isaac Moeller, Chris Griffin, Sheridan Rudolph, Lewis Drageset, Barry Gates, Barry Kinter, and Brent Nelson. Looking forward to future projects!"*

EDDIE DANIELS
Assistant Vice President,
Business Services | Division of Business Affairs

Enable Student Success

- Implemented *Scholarship Universe*, matching students to thousands of UF and non-UF opportunities, and helping students apply for and receive scholarship awards quickly and easily

- Developed an academic distress monitor to identify undergraduates as early as week two of a term—those students likely to be placed on academic probation or who might withdraw from UF

- Supported 71 Quest Program faculty to enhance the undergraduate student learning experience

- Implemented *Graduway*, a networking system allowing students to match up with mentors in UF's network

- Implemented *Whole Gator*, a mobile application to curate programs and information to maximize student wellness

- Advanced the Disability Resource Center (DRC) functions within Gator360, including a method for advisors to view students' accommodations and providing advisors direct access to DRC data for the first time

- Developed a curricular pathway tool for undergraduate advisors to evaluate the relationship between student success and curricular decisions

- Enhanced and secured UF digital learning by reviewing, reassessing, and integrating 32 learning tools into Canvas

- Launched four instructor-student pilot projects focusing on data-driven decision-making and time savings in learning environments

- Assisted nearly 1,000 graduate students with thesis or dissertation formatting. The vast majority of students assisted by UFIT had their work accepted on first submission

- Hosted six *Tech Byte* events and the annual *TechXploration*, attracting 847 faculty and staff. Generative AI and its impact on teaching and learning was the focus of several events

- Contributed to establishing UF guidelines for fairness and equity in student assessment

- Developed the Coaching for Student Success resource for advisors and staff who support student coaching

Empower the Future of Research

- Contributed to generative AI knowledge and practice, and its safe and secure use in UF's research computing environment, by developing training and workshops, and by also including generative AI in research project consultations

- Participated in AI consulting projects, including:
  - GatorTronGPT, a generative medical language model for various medical and patient care applications
  - IFAS Extension Chatbot, a language model for customer and extension agent uses, which would better and more accurately support agricultural needs than the general ChatGPT

- Installed software tools for generative AI in imaging and language processing

- Collaborated with NVIDIA to offer multiple lectures and training opportunities, and hosted a nine-day NVIDIA hackathon event, drawing 10 research teams as participants

- Supported women in research and AI with multiple events featuring cross-disciplinary female faculty excelling in UF's high performance and AI computing environment

- Used StyleGAN to generate synthetic fashion images as an AI application in arts and use it as an example to outreach to faculty and students in College of the Arts for AI support

- Supported 427 investors in HiPerGator this fiscal year

- Began IT rationalization and network upgrades for Scripps Biomedical Research faculty

- Integrated UFIRST action items for researches into the ONE.UF platform

- Launched email delivery of the "Research Indicators Report," providing campus leadership (deans/asst. deans of research across colleges) insight into sponsored programs awards, projects, expenditures, and proposal trends

- Taught "Getting Started with HiPerGator" and held HiPerGator Bootcamps each semester, along with classes on Linux command line and programming languages used in the supercomputing environment, to maximize research productivity

> "As ALWAYS, thanks so much for helping me with the technology in Pugh 170 today for my first day of teaching in the lecture hall. Once again, UFIT's classroom staff demonstrate how they are among the most reliable and efficient parts of UF. Thanks again."

ERIC KLIGERMAN

Associate Professor of German Studies, College of Liberal Arts and Sciences

Accelerate Philanthropic Impact

- Supported UF Advancement's *Engine Next* project, by providing technical resources to help with application-to-application integration. Served as consultants to help develop strategies for data warehousing and reporting, and cross-trained UF Advancement staff in developing best practices and using the software tools

- Set up Snowflake, a modern data warehouse for UF Advancement

- Created document repositories in EDM and updated endowment processes within myUFL to enable more proficient processes for UF Advancement staff

> "Dear Dr. Silva-Lugo, Taking your SPSS training has enriched my statistical knowledge. I am currently developing a workshop on 'Frequentist vs. Bayesian Analysis for Healthcare Providers'. We had a grand rounds speaker tell us about an important study that was being ignored because they used a Bayesian analysis and people don't understand it. I don't think I would have embarked on developing this workshop without the knowledge I gained in this course."

MATTHEW GARBER

Professor of Pediatrics, Director of Pediatric Hospital Medicine Fellowship, UF COM - Jacksonville

Elevate the Stakeholder Experience

- Continued efforts to modernize the identity and access management (IAM) environment for UF. The IAM upgrade, and simplifying access management, is a multi-year initiative

- Implemented *UF GO*, a platform used for travel, expense monitoring, and better integration of reports

- Developed a process for *Superior Accomplishment Award* nominations to be submitted and managed centrally by UF-HR. Previously, staff emailed nominations to liaisons across campus who were responsible for collating and managing the nomination process

- Created the first stakeholder-focused *Crisis Communications Plan* for UFIT, ensuring that regular messaging in high-level (not too technical) language will be thoughtfully communicated

- Deployed a comprehensive financial report suite, providing campus with the ability to retrieve Available Balances, Transaction Details, Payroll Details, Projected Payroll Details and Encumbrances across all funding sources in one location

- Deployed more than 200k reports to assist the Budget Office in reviewing, correcting, and adhering to the State of Florida payroll funding source requirements

- Provided technical expertise to convert the employee service pins program from SAS into Enterprise Analytics, improving ease of access and consolidating various versions of code into one reporting object

- Improved reporting views of time entered and approved reporting, enabling a more robust reporting option for managers and time approvers across campus

- Leveraged the latest technologies and created an AI-enabled chat service providing students, faculty, staff, and alumni with a personalized Q+A experience. In its first year, more than 8,500 chats were conducted in the AI Gator chat

- Implemented pay shift differentials for the university, resolving a cumbersome, manual process for staff that handle payroll for their units

Advance an Analytics-Enabled Environment

- Reinvigorated the UF Data Governance practice to define the framework that aligns strategy, objectives, and policies for university data. Data governance involves the establishment of clear definitions, standards, processes, input and decision rights, roles and responsibilities, enforcement, and controls for the various data domains involved in the operations of the university

- Implemented Microsoft A5 licenses for all faculty and staff enabling Power BI Pro access

- Implemented a modern data warehouse to serve as the data hub for sharing data, data warehousing, reporting, and analytics for university operations

- Expanded the capacity of the UFIT data platform through incorporation of HiPerGator into daily workflows to support data repatriation and data science projects

- Developed real-time learning management system data streams to monitor student success across the university

Build a Resilient Cybersecurity Environment

- Upgraded and expanded risk management hardware and software, and assisted with the deployment of enterprise vulnerability management tool to advance cyber capabilities

- Implemented email safe link and safe attachments tools to modernize UF's email security

- Began multi-year project to implement Microsoft Defender for Cloud Apps, Defender for Identity, and Defender for Endpoints

- Deployed risk assessment dashboard to campus, providing insight into the risk assessment review process including individual department metrics, college-level metrics, and details on security awareness training compliance across campus

- Developed data sharing agreements for Data Governance that will increase the transparency of who is using university data and for what purpose. The data sharing agreements are approved by the appropriate campus data trustee

FY 2023 Projects Completed

> "*Thank you, Govinda Harris, for quickly and accurately updating our Higher Education Officer documents. I also appreciate your reminder about clearing my cache and cookies to see the correct version on my side. I had forgotten about that! Very much appreciated!*"

VERLISSA FORD
Human Resources Specialist II,
Training and Organizational Development, Human Resources

UFIT's Project Management Office (PMO) enables the university to implement strategic solutions through the successful planning and monitoring of portfolios, programs, and projects. The PMO standardizes project-related governance processes and utilizes tools and methodologies that support collaboration across systems, facilitates communication with stakeholders, and maximizes productivity.

An overview of projects completed by UF area is provided below.

Projects by Area	
UF Advancement	3
UF Business Affairs	1
UF Compliance and Ethics	2
Office of the CFO	19
UF Human Resources	15
Non-Core Offices	9
Provost's Office	15
Division of Sponsored Programs	25
Division of Student Life	21
Student Services	32
UFIT	51
Total	194

> "*Patrick Pettus was incredible and went the "extra mile" to ensure Pharmacy IT had access to the resources we needed in Zoom.*"

LANE BLANCHARD
Director of Information Technology, College of Pharmacy

ERP Readiness

> *"The collective vision of the university's administrative community for the new ERP is opening the door for improvements in how UF supports faculty sponsored awards. It is very exciting to be a part of this opportunity to change the way we think about and use enterprise computing."*

STEPHANIE GRAY
Assistant Vice President and Director,
Division of Sponsored Programs | UF Research
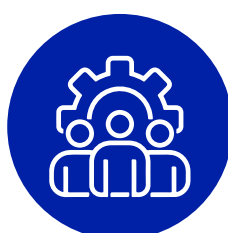
UF's Enterprise Resource Planning (ERP) system provides critical support to operate the university's finance, human resources, and research funding activities. A readiness assessment was conducted in Fall 2022 to understand how UF's business processes and administrative systems could be modernized to better serve the institution. The readiness assessment was presented to the Board of Trustees at their December 2022 meeting. After additional requests for information were reviewed by the Board, the trustees approved Workday as the new ERP solution at their June 2023 meeting.

UFIT is supporting the *Empowering UF* three-year implementation project and established a program framework to manage multiple projects required of such a significant undertaking. *Empowering UF* will define the university's enterprise computing landscape for decades to come. In FY24, UFIT will engage in extensive planning discussions with project leadership and campus stakeholders. We will focus on critical activities to support a successful implementation, including identifying an implementation partner, modernizing UF's business processes, and enhancing UF's data governance and strategy.

The Workday implementation will begin in earnest in July 2024, with the anticipated go-live date forecasted for July 2027.

> *"Brandon Turnage did a great job helping with my complicated issue and was very patient with me while trying multiple methods to fix my Outlook email problems. Thank you for the help!"*

ROBERT HUTNIK
Anesthesiology Resident, College of Medicine

Information Security Objectives

Objective: Advance institutional mission through an integrative and holistic approach to risk management with user-centered, outcome-oriented solutions.

- Conducted 1,491 information system risk assessments in FY23, ensuring comprehensive evaluation and mitigation of potential risks across university systems
- Added 87 options to *UF's Fast Path Solutions*, increasing the inventory to 583. These pre-vetted solutions enable secure data storage, analysis, and sharing capabilities without requiring further administrative review
- Implemented 57 improvements to UF's integrated risk management system, including a system upgrade and integration of single sign-on capabilities
- Collaborated with the Office of General Counsel and Provost's Office on a regulation and guidance documentation for faculty to comply with a new Board of Governors regulation on exam security
- Launched the unit security metrics dashboard in UF's business intelligence platform so campus staff can oversee unit-level information security risk data

Objective: Leverage automation to make timely, data-driven, and context-aware decisions that minimize the impacts of adverse events to the university.

- Implemented a new enterprise vulnerability management platform, enabling more frequent network scans from 14 days to seven days
- Enhanced network security by incorporating intrusion prevention system events into the network security monitoring platform
- Blocked 830,484,628 malicious IP addresses from the UF Network
- Ensured timely response to email abuse by handling 48,062 reports received at *abuse@ufl.edu*

Objective: Provide a secure UF environment, promote a risk-aware culture, and build a resilient and flexible cybersecurity environment.

- Conducted a ransomware tabletop exercise to assess readiness, test assumptions, and identify gaps in the university's incident response processes
- Supported UF's pursuit of HITRUST certification for HiPerGator, enabling cutting-edge research with restricted data
- Collaborated with Environmental Health & Safety to update risk assessment criteria for drones, aligning with revised state regulations
- Increased cybersecurity awareness at UF, with 10,878 students completing the phishing training in FY23. Information Security Office staff also conducted 19 phishing awareness campaigns that simulated attacks in 1,166,645 emails to faculty, students, and staff. *Protecting UF: Information Security Training* was completed by 16,526 faculty and staff in FY23

> "*Fran Fiorello and the DPA team have given countless hours on our comprehensive suite of reports. Their partnership has allowed us to create and continue to enhance our reporting to campus. Fran has also taken the time to explain how the system and our data is structured. She never complains about my ongoing stream of questions.*"
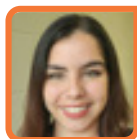
MICHELLE ROMERO
Business Intelligence Analyst,
Controller's Office Center for Excellence

Securing UF: DATA NETWORKING REPUTATION

180 Million
Reconnaissance Scans Detected/Blocked

830.5 MILLION
Malicious IP Addresses Blocked from UF Network

425
Requests for Litigation, Investigative, and Public Records Support

1,400,000,000
EVENTS DETECTED

Attacks, DOS/DDOS, Command and Control, Reconnaissance/Scans, Suspicious Events, and Vulnerabilities

CAMPUS POLICIES AND STANDARDS APPROVED IN FY23

- Information Security Plans Policy and Standard

- IT Rationalization Policy and Standard

- Malicious Software Controls Standard

- System Security Policy and Standard

- *[Revised]* Account Management Policy and Standard

- *[Revised]* External IT Vendor Sourcing Standard

> "*I appreciate all the help Ruder Singh provided in setting up my whitelists in Respondus LockDown browser. Thanks very much!!*"

CAROLYN KELLEY
Senior Lecturer,
University Writing Program, College of Liberal Arts and Sciences