The Data Science House We BILT

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The Neighborhood

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The CIT Program was a 'fixer-upper'

- Computer Information Technology A. S. degree
    - Software Development Track
    - Web Track
    - Database Track

    - Computer Programming Specialist
    - Database Development Specialist
    - Information Technology Analysis
    - Information Technology Support Specialist
    - Web Development Specialist

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The Dean wants to build a new program

- Informatics sounded like something from the 80s

The IT Advisory Committee likes the idea!

They suggest calling it Data Science

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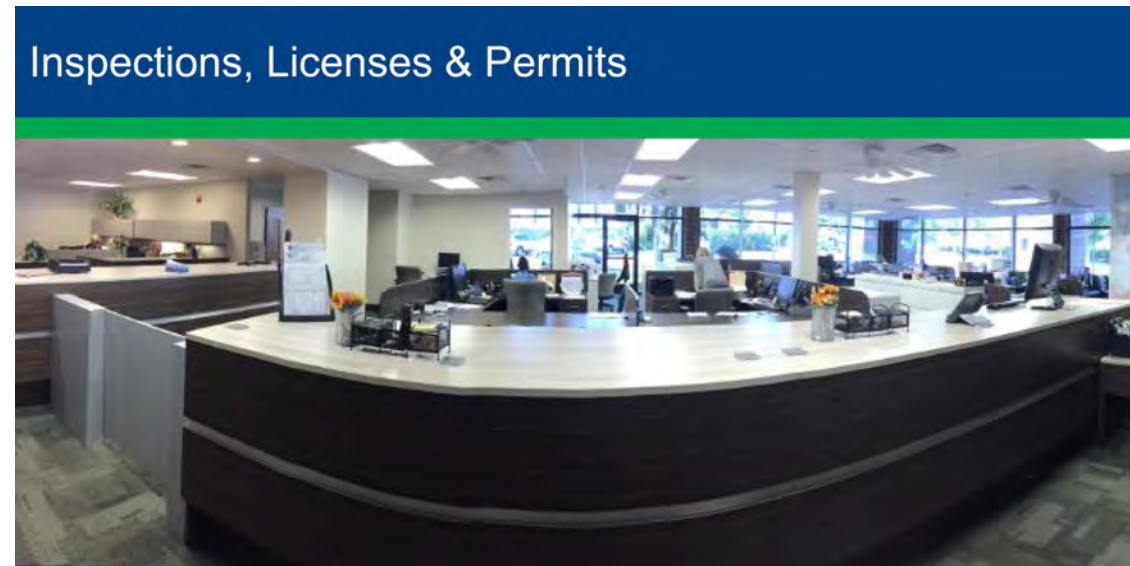
What local industry needs in students:

- Python
- SAS
- R
- Big Data / Hadoop
- Power BI
- Tableau
- Security

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We needed official permission to build

- Naturally, we went to the Office of Institutional Effectiveness and Accreditation

- SACSCOC – Southern Association of Colleges & Schools Commission on Colleges – Substantive Changes
  - A new program takes 18 months 😢
  - A new track only takes 6 months 👍

Inspections, Licenses & Permits

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Planning construction and moving

- *STRATEGIC MOVE:*

- Create new electives in the CIT program

- Propose a new track – 6-month countdown starts

- Start developing the degree framework for the state – 9 months

- Use the new electives in the new track!

- Use the new track to create a new degree!

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DataTEC: Data Science Technician Education & Careers

- NSF ATE grant #1902524
- $566,953

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New furniture added to the old house

- Intro to Python Programming

- Intro to SAS Programming

- Intro to Statistical Programming with R

- Intro to Big Data with Hadoop

- Data Visualization

- Data Warehousing (a rework of a 4000-level BI course)

- Intro to Information Tech (Data Science outcome added)

Temporary quarters during construction

- Data Science track added to the CIT degree

- Electives added to the track

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Creating a new degree framework

dreamstime.com
ID 175789151 © Roman Chazov

- We took the outcomes from all of the courses we wanted in our program

- We grouped them into Standards (suggested 5 to 10)

- Polished the outcomes into benchmarks under each standard

- The numbering was the biggest challenge

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State Framework Approved

Data Science Technology A.S.

https://www.fldoe.org/core/fileparse.php/20569/urlt/1530700100-2324.rtf

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Prefab, modular construction was fast!

- The new Data Science Technology A. S. degree proposal sailed through our curriculum process at FSCJ

- https://www.fscj.edu/academics/programs/as/2157

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More value!

- Industry certification preparation
  - Linux+
  - Network+
  - Security+
  - SAS Base Programmer
  - Python PCAP
  - OCA Java
  - MOS Excel Associate
  - Tableau Desktop Specialist

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Moving day!

- New degree contains all the new electives
- Plus courses shared with:
  - the Computer Information Technology degree
  - the Networking Systems Technology degree
  - the IT Security degree

https://catalog.fscj.edu/preview_program.php?catoid=46&poid=8434&returnto=7373

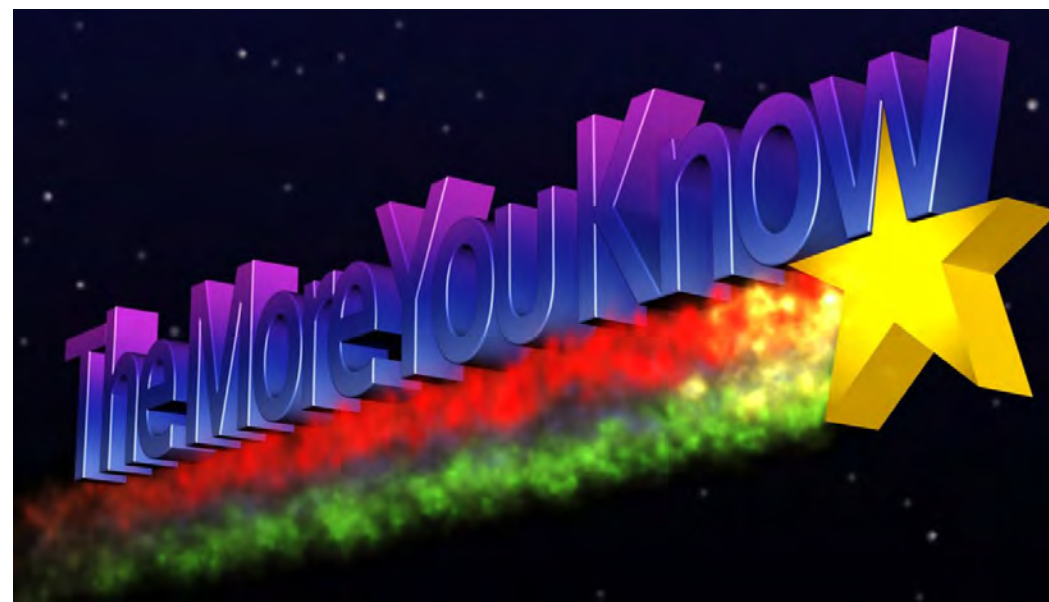FSCJ Florida State College at Jacksonville

Renting out a room to a neighbor

- Two technical certificates (CCCs – college credit certificates)
  - Data Science Technician Technical Certificate
  - https://catalog.fscj.edu/preview_program.php?catoid=46&poid=8435

  - Fintech Technician Technical Certificate
  - https://catalog.fscj.edu/preview_program.php?catoid=46&poid=8449
  - Fintech outcomes added to Excel, Python, SAS

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Dissemination/Training

- Summer Working Connections
  - Virtual & In-person
  - Textbooks sent to participants
- Winter Working Connections
  - Virtual
- WASTEC
- HITEC (SLC & Atlanta)
- College Professional Development
- GitHub repos

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- SQL Saturday - Jacksonville
- Orlando Machine Learning & Data Science Meetup
- Big Data Jax Meetup
- ODSC – Open Data Science Conference
- PyCON – Python.org Conference
- r::Studio – R and R studio
- WSDS – Women in Statistics & Data Science
- ASA-CSP – Conference on Statistical Programming
- Github Classroom (7 AM workshop)
- Summer Working Connections – Frisco
- fintech_devcon
- ATE – PI
- HITEC
- Q-con
- SAS Explore
- Alteryx Inspire & SparkED

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2ⁿᵈ No-cost Extension = 5ᵗʰ year

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It's time to remodel

- Fintech API outcomes
- Git and github used in courses
- Jupyter notebook and Google Colab in Python
- Posit in Statistical Programming with R
- Looking at Alteryx for the Big Data course – Hadoop is getting old
- Java needs to move from version 8 to version 17
- SAS moves to the cloud with SAS Viya
- Network+ course updated for Cloud

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