Kevin Francis

Data Scientist | Software Engineer

📱 (256) 617 4174

🌐 kevinfrancis1.github.io

✉ kevinfrancis1492@gmail.com

in /in/kevinfrancis14

Technical Skills ——

Programming | Software

Python • R • Atlassian Suite • Linux

Matlab • SQL • Git • Office Suite

BASH • C++

MS, Physics
Auburn University
2017 - 2019 | Auburn, Alabama

BS, Physics
University of West Florida
2014 - 2017 | Pensacola, Florida

Relevant Coursework
Database Systems
Statistical Modeling
Modeling in Regression
Machine Learning
Data Mining

Experience

| March 2023 - Present | **Data Scientist | Software Engineer** | IERUS Technology |
| | Huntsville, AL | |

- Performed Hyperparameter tuning to optimize models
- Created prototypes of different model types with PyTorch
- Did statistical analysis on training datasets to identify any imbalances
- Aligned simulation data with real world radar data
- Wrote unit tests to increase code coverage

| July 2022 - March 2023 | **Software Engineer** | Radiance Technologies |
| | Huntsville, AL | |

- Create and maintain scripts to test the correctness and performance of software
- Setup automated testing for daily validation and release builds
- Refactored and optimized existing tools and code for efficiency
- Support integration efforts by doing root cause analysis
- Create documentation to support existing tools

| May 2019 - July 2022 | **Software Engineer** | IERUS Technology |
| | Huntsville, AL | |

- Scrum Master
  - Manage a scrum team ranging from five to seven members in a scaled agile environment
  - Responsible for communication between the team, product owners and leadership
  - Coordinate and plan work for upcoming sprints
  - Present end of sprint demos to stakeholders and leadership
- Software Engineer and Analyst
  - Work as an engineer and analyst on a radar modeling and simulation software team
  - Develop metrics and visualizations to quantify software performance
  - Used Python to automate tasks and expedite software analysis
  - Used MATLAB to create analysis tools for radar and software validation
  - Quantify results of potential software and hardware changes or upgrades
  - Test the software to prepare for engineering releases and ground tests
  - Model existing aspects of the software for validation and improvement efforts
  - Conduct root cause analysis on data from hardware-in-the-loop (HWIL) simulations

| May 2018 - Aug 2018 | **Researcher** | Air Force Research Lab |
| | Albuquerque, NM | |

- Investigated the RF emitted by filamention from different beam profiles
- Explored how different beam profiles behave in turbulence
- Characterized the long distance propagation for different beam types
- Used various lab equipment to align the laser and collect data
- Utilized python for image analysis on CCD images
- Applied signal processing techniques to obtain information about the emitted RF
- Organized and presented results in a technical document after completion

Kevin Francis

Data Scientist | Software Engineer

📱 (256) 617 4174

🌐 kevinfrancis1.github.io

✉ kevinfrancis1492@gmail.com

in /in/kevinfrancis14

Technical Skills ——

Programming | Software

Python • R • Atlassian Suite • Linux

Matlab • SQL • Git • Office Suite

BASH • C++

MS, Physics
Auburn University
2017 - 2019 | Auburn, Alabama

BS, Physics
University of West Florida
2014 - 2017 | Pensacola, Florida

Relevant Coursework
Database Systems
Statistical Modeling
Modeling in Regression
Machine Learning
Data Mining

Aug 2016 - May 2017	**Researcher** Pensacola, FL	University of West Florida

– Researched stable structures of boron nanoparticles
– Utilized Naval Research Laboratory Molecular Orbital Library (NRL-MOL) to perform electronic structure and density functional theory calculations
– Python was used for task automation and analysis
– Presented results at multiple conferences

May 2016 - Aug 2016	**Researcher** Provo, UT	Brigham Young University

– Searched for new stable ternary superalloys
– Applied cluster expansion techniques with UNiversal CLuster Expansion (UNCLE) software package
– Implemented density functional theory using Vienna Ab initio Simulation Package (VASP)
– Employed python scripts over a cluster for data analysis and job automation
– Compiled results into a technical document and presented results