


ERNEST GUAGLIATA

Flagler Beach, FL

☎ (386) 503-5707 ✉ ernie@ernieblues.com  [linkedin.com/in/ernieblues](https://www.linkedin.com/in/ernieblues)  github.com/ernieblues

EDUCATION

Master of Science in Computer Science	Florida Atlantic University, Boca Raton, FL
Bachelor of Science in Information Technology	Daytona State College, Daytona Beach, FL
Associate of Arts in Engineering and Science	Seminole State College, Sanford, FL
Associate of Science in Electrical Engineering Technology	Suffolk County College, Selden, NY

RELEVANT COURSEWORK

Computational Foundations of AI, Reinforcement Learning, Robotic Applications, Object-Oriented Software Design, Analysis of Algorithms, Database Systems, Data Structures

SKILLS

Languages	Python, Java, C/C++, C# .Net, Linux CLI, JavaScript, HTML, CSS
IDEs	Eclipse, Notepad++, PyCharm, Visual Studio
Soft Skills	Analytical Thinking, Communication, Comprehension, Flexibility, Organizational, Project Management

PROJECTS

Custom Kernel Support Vector Machine	Python, Linux, Shell Script, SLURM, PyCharm
Florida Atlantic University	GitHub

- Developed a custom kernel, using scikit-learn, for a trend filtered support vector machine used for classification and regression of autocorrelated features.
- Calibrated the classifier model to improve the reliability curve and produced ROC curves and confusion matrices.
- Utilized the Seaborn API to generate line plots, violin plots, histograms, and scatter plots using the Seaborn color brewer palette to produce professional color schemes.
- Parsed a large data set consisting of 24K files with 1M observations each.
- Submit jobs to the high powered computer with Slurm commands and shell script.

Desktop Media Player	Java, Swing, Eclipse
Daytona State College	GitHub

- Object-oriented programming
- Documented with functional requirements, Use cases, and UML class, sequence, & state diagrams.
- Unit testing.

Identity Authorization	C#, .Net Core, Visual Studio
Daytona State College	GitHub

- Developed a C# .Net project with Identity Authorization and handlers.

WORK HISTORY

Research Assistant	Aug 2021 - May 2022
Florida Atlantic University	Boca Raton, FL

- Python programming.
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Associate Engineer

Teledyne Marine

Jan 2006 - Oct 2014

Daytona Beach, FL

- Work closely with Engineers to solve problems, aid in designs, and write procedures.
- Lead the High Power Team on all Shell High Power qualification testing projects.
- Design and fabricate test equipment including electronic controls, programming in Visual Basic, and pressure vessel heating, chilling, and automation.
- Partial Discharge Testing of sub-sea connectors, jumpers, and associated components.
- High voltage and high current testing.
- Operate high pressure vessels, environmental chambers, chillers, shock & vibration, X-Ray components, and fiber optic splicing & testing.
- Qualification testing of new products.
- Prepare detailed reports in Microsoft Excel including plots, graphs, and annotated photos.
- Assemble special projects, collaborate with engineering on assembly, changes in assembly procedures, test procedures, and design issues.
- Proficient use of Microsoft Office, AutoCAD, and IFS software.

Engineering Technician

Duke Energy

April 2001 - July 2002

Lake Mary, FL

- Utilized knowledge of engineering principles and established design guidelines to draw complex schematics using AutoCAD and CAD Overlay.
- Created and designed modifications for switchgear and transmission relay substations, changing circuit breakers, transformers, protection relays and digital fault recorders.
- Designed and implemented special features to support Engineers when using drafting tools, such as AutoCAD and CAD Overlay.
- Assist in establishment of design standards and guidelines for drawings in accordance with company regulations.
- Collaborate with Engineers and Field Technicians to develop comprehensive solutions for technical and documentation issues.

Electrical Engineer

Gamma High Voltage

Oct 1994 - Feb 1999

Ormond Beach, FL

- Designed control circuits which included pulse width modulators, resonant controllers, error amplifiers, comparators, ramp generators, integrators, absolute value amplifiers, level shifters, summing amplifiers, buffers, inverters, fiber optic isolated remote control circuits, and analog/digital panel mounting meter drivers.
- Developed high voltage power supplies (500 V to 300 kV) implemented in x-ray tubes, image intensifiers, photo multiplier, filament, and other applications as well as high voltage half wave and full wave voltage multiplier circuits.
- Created power inverter circuits up to 2KW consisting of field effect transistors and their associated topology (half bridge, full bridge, series, and parallel resonant) including isolated pulse transformers and pulse transformer drives.
- Implemented insulation into high voltage components using RTVS, epoxy, oil, epoxy glass, polycarbonate, PVC, and air.

Engineering Technician

Spellman High Voltage

Dec 1989 - Sept 1994

Hauppauge, NY

- Produced detailed designs of parts, assemblies, and drawings according to customer specifications.
- Designed custom universal wound high voltage transformers voltage spacing and minimum EMI/RFI in accordance with specifications.
- Printed circuit board and PWB design for minimum EMI/RFI.
- Improved overall design process by establishing standards, designing test equipment, writing test procedures, and revising documentation techniques.
- Ensured design concepts and drawings were accurate and met relevant project requirements, codes, and standards.