Jesus Gil

Jesusgil1098@gmail.com
+1 (984) 344-7726

Developer with a strong background in software engineering, quantitative analysis, and machine learning. Skilled in architecting custom backend solutions, automating tasks, and developing risk management software. Excited about the opportunity to collaborate and contribute to dynamic team environments that prioritize continuous improvement.

LinkedIn URL: www.linkedin.com/in/jesusrgil
Github URL: https://github.com/jeragilo

EDUCATION

University of Charlotte, NC
Masters: Computer Science
Relevant Coursework: Foundations of Programming, Software Systems Design and Implementation, Data Structure & Algorithms.
Research: Cloud implementation using distributed systems and High Performance computing. Insight Nexus - cutting edge data analytics platform, Personalized Education and Learning Analytics, Predictive Analytics for financial crime detection in digital transaction, Financial Market Volatility, Robotic Process Automation (RPA) in business operation.

North Carolina Wesleyan College, NC
Major: B.S Mathematics
Minor: Business Administration
Relevant Coursework: Programming Structures, Object Oriented Programming 1 & 2, Operating Systems, Data Structures & Algorithms, Discrete Structure, Linear Algebra, Abstract Algebra, Probability and Statistics, Multivariable Calculus, Elemental Differential Equation.
Research: Cloud Analytics

SKILLS

- Fluent in Spanish (Native)
- Programming languages: Python, R, Java, Javascript, HTML, C++.
- Frameworks / Libraries: TensorFlow, PyTorch, Pandas, NumPy, xgBoost, keras. Scikit-learn.
- Operating systems: Windows 10, MacOs, Linux, Ubuntu.
- Cloud platform: IBM cloud, Microsoft Azure, AWS, VMWare.
- Cloud computing: Virtual privates cloud using Azure, Terraform, Ansible, CI/CD pipelines.
- Database management: SQL, NoSQL, Apache, excel.
- Automation & DevOps: Jenkins, Kubernetes, OpenShift, Docker, Terraform, Ansible, VMWare, Hashicorp.
- Algorithmic Trading and Financial Analytics
- Quantitative development tools: QuantLib, OpenQuant, QuantConnect, Bloomberg terminal, quantitative modeling, financial data analysis, backtesting strategies, portfolio optimization techniques, high frequency algorithms, and risk management methods.

PROJECTS

1. Financial Portfolio Optimization Application:
   - Developed a web-based application using Django and Python to optimize investment portfolios based on modern portfolio theory.
   - Utilized machine learning algorithms for predicting asset returns and risk assessment.
   - Integrated with financial data APIs to retrieve real-time market data for analysis.
2. Cyber Security Incident Response Platform:
   - Designed and implemented a SIEM-based incident response platform using Splunk.
   - Developed custom threat detection rules and correlation searches to identify security incidents in real-time.
   - Conducted penetration testing and vulnerability assessments to proactively identify and mitigate security risks.
3. Predictive Maintenance System for Manufacturing:
   - Built a predictive maintenance system using Apache Spark and machine learning models to predict. equipment failures in manufacturing plants.
   - Integrated with IoT sensors to collect real-time equipment data for proactive equipment maintenance.
4. Fraud Detection System for Financial Transactions:
   - Objective: Develop a machine learning-based fraud detection system to identify fraudulent transactions in real-time for a financial institution.
   - Skills Demonstrated:
   - Machine learning: Utilized supervised learning algorithms such as logistic regression or random forests to classify transactions as fraudulent or legitimate.
   - Data management: Collected, preprocessed, and analyzed large volumes of transactional data using SQL on NoSQL databases and big data technologies like Apache Spark.
   - Cybersecurity: Implemented anomaly detection techniques and behavior analysis to detect fraudulent activities.
   - Outcome: Successfully reduced false positives and improved fraud detection accuracy.
5. Algorithmic Trading Platform for Portfolio Optimization:
   - Objective: Design and implement an algorithmic trading platform that optimizes investment portfolios based on quantitative finance models and algorithms.
   - Skills Demonstrated:
   - Quantitative Finance: Developed financial models for portfolio optimization, risk management, and asset allocation.
   - Machine Learning: Used machine learning algorithms to forecast market trends, volatility, and asset returns for informed trading decisions.
   - Data Management: Integrated with financial data sources and APIs to retrieve real-time market data for analysis and decision-making.
   - Outcome: Achieved an average annual return on investments (ROI) of 15%

EXTRA CURRICULAR INVOLVEMENT & CERTIFICATION

- AWS Cloud Technical Essentials
- AWS Certified machine learning - specialty
- Microsoft certified: Azure AI Engineer Association
- IBM Data Science Professional Certificate
- Google Professional Data Engineer
- IBM's Continuous Integration and Continuous Delivery (CI/CD)
- IBM's Introduction to DevOps
- IBM's Introduction to Cloud Computing
- IBM's "Python Basics for Data Science"
- IBM's "Analyzing Data with Python"
- Sololearn Java
- Duke University "Programming Foundations with JavaScript, HTML, and CSS.
- Microsoft's "Visual Basic Programming"
- North Carolina Wesleyan University Men's Tennis Team.
- Research on "The Coding Theory"
- Leadership Academy Member.
- Member of the Student Athlete Advisory Committee.
- Member of the Information Systems Club.

WORK EXPERIENCE & INTERNSHIPS

Systems Support Analyst, Goodlife Care Inc.   March 2021 - August 2022
Raleigh, North Carolina
- Implemented Virtualization using OpenVZ/KVM reducing physical nodes from 60 to 6.
- Slashed spending on technology infrastructure and staff by 40% via migration of data and 15 key applications to the cloud.
- Monitored daily website operations.
- Knowledge of Active Directory, Azure AD
- Use of programming scripts like Groovy, Bash Shell, DOS, and PowerShell scripting.

Goodlife Care Inc. Development Internship, Goodlife Care Inc.   February 2019-May 2019
Raleigh, North Carolina
- Hands-on experience with configuration management systems such as ansible, chef and puppet
- Employ best coding practices and object-oriented programming techniques to work on different software development projects.
- Work as part of a 5-member team to release and update 20+ custom .net applications for the company clients in health and insurance niches.
- Acknowledgement for detecting a software testing process bottleneck, decreasing software testing time by 15%.
- Obtain a solid understanding of embedded application development by creating, testing,and deploying applications on custom hardware.
- Perform refactoring of student library website's legacy Javascript codebase, reducing loading time by 80%.
- Assisted with volunteer operations through research, data tracking, and educational materials.
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Tennis Coach/Facility Manager, Lake Wilson Country Club   April 2020 - September 2020
Wilson, North Carolina
- Developed Individual and group tennis clinics and lessons for new and returning players.
- Worked with tennis department officials and coordinators to develop highly effective programs that support goals and needs of specific athletes.
- Worked with the department to successfully organize and carry out tennis events.
- Overlooked daily facility maintenance.
- Conversed with prospective members.
- Private lessons to club members.
- Spoke to any member with particular concerns.

Tutor/Assistant, Fike High School   March 2021 – September 2021
- Provided Spanish and Math lessons to an approximate of 30 students per semester of different   nationalities and ages.
- Helped students with their writing and editing process.
- Worked as assistant and receptionist, answering phone calls, setting up tutoring   appointments and providing customer service.
- Assisted students in the process of receiving services offered by the Learning Center and other   resources on campus, in order to guide them towards their desired outcome.

HONORS AND AWARDS

- President's List Spring 2019, 2020, 2021.
- Provost Honor Roll Fall 2019, 2020, 2021.
- ITA All academic team 2019, 2020, 2021.
- Selected as North Carolina Wesleyan College Tennis Team Captain for the year of 2019, 2020
- President's List Spring 2020 and Fall 2020
- Conference Carolinas Tournament Most Valuable Player Award for the years of 2017, 2018, 2019
- NCAA Conference Carolina Men's Tennis First Team All-Conference 2017, 2018, 2019 .
- Ranked top 600 of the International Tennis Federation.
- Ranked top 5 in Venezuela for the age groups of 14 and under, 16 and under, 18 and under.

VOLUNTEER WORK

- **Day of Service**
  - Contributed to improving community by rebuilding and cleaning important landmarks
- **PAL Tennis Camp** - Wilson, NC, 2017-2018
  - Motivated at risk children to participate and have fun
  - Demonstrated and taught fundamental tennis skills and strategies
- **Barton College Tennis Camp** - Wilson, NC, 2017-2019
  - Taught and implemented tennis drills to children aged 4-18
- **Tutoring for Fike High School Students** - Wilson, NC, 2016-2018
  - Taught mathematics and Spanish lessons
- **Make-A-Wish Foundation** - Wilson, NC, 2016-2019
  - Sold raffle tickets and products in fundraisers

REFERENCES

- **Dr. Bill Yankosky, Director of Science and Maths Programs**
  (252)985-5149, Byankosky@ncwc.edu

- **Dr. Brent Dozier, Assistant Professor of Mathematics and College Advisor**
  (252)985-5260, Bdozier@ncwc.edu

- **Maria Pannese, Goodlife Care Inc.**
  (919)522-1109, Mariapannese@hotmail.com

- **Jeananne Kenney, Assistant Professor of Information Systems**
  (252)985-5120, jkenney@ncwc.edu

- **Nico Duarte, IHC Tennis Director**
  (571)528-5522, Nico@campihc.com

- **Jake McCartney, Head Tennis Professional at Wilson Lake Country Club**
  (252)292-6767

- **Matt Rowe, North Carolina Wesleyan Head Tennis Coach**
  (252)717-2101, Mrowe@ncwc.edu

- **Dawn Turner, Director of International Student Services**
  (252)985-5124, Dturner@ncwc.edu