

**Jose M Serra Jr.**  
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## INTRODUCTION

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Data Scientist with a background in Mathematics and Computer Science. Experienced in developing software applications, and conducting research in Artificial Intelligence.

## EDUCATION

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<b>New Jersey Institute of Technology</b> <i>Master of Science in Data Science GPA: 3.333</i>	Newark, NJ <i>Sept. 2023 – Dec. 2025</i>
<b>Kean University</b> <i>Bachelor of Arts in Mathematical Science Data Analytic Option GPA: 3.328</i>	Union, NJ <i>Jan. 2021 – May. 2022</i>

## PROGRAMMING SKILLS

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**Languages:** Batch, C#, C++, CSS, Excel, HTML, Java, JavaScript, PowerShell, Python, R, SQL

**Technologies:** AWS, Bitbucket, Django, Git, GitHub, Keras, Matplotlib, Node.js, NumPy, Pandas, Plotly, PyTorch, REACT.js, Sci-kit learn, SciPy, TensorFlow, .NET Framework, WinForms

## EXPERIENCE

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<b>Panasonic</b> <i>Software Engineering Intern</i>	Newark, NJ <i>Nov. 2022 – Present</i>
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- **Product Development Life cycle:** Collaborated with stakeholders to gather requirements, design, develop, and test software applications, ensuring timely delivery.
- **Software Development:** Developed C#, Batch, and PowerShell applications for OS-hardware communication. Created web apps with Python, Django, JavaScript, CSS, HTML, including a dashboard and a Scikit-Learn summarization tool. Designed a GUI using Blue Fusion API for police data.

<b>Kean University</b> <i>Research and Teaching Assistant</i>	Union, NJ <i>Sept. 2021 – Dec. 2022</i>
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- **Researcher:** Researched ITCZ detection using CNNs and DETR; explored language models with RNNs and BERT.
- **Teaching Assistant:** TA for the Computer Science Department's TECH 1010 and for the AI4ALL Kean cohort intro course.

## PROJECTS

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**ITCZ Research:** Convolutional Neural Networks hyperparameter analysis using weather data.

**Panasonic EZ Configurator:** Graphical User Interface that facilitates the configuration of Panasonic TOUGHBOOKs.

**StarCoder LLM Response Generator:** Created an app using a Linux server, A100 GPU Cluster, and StarCoder LLM to generate responses to prompts.

**Web Search App:** Developed an app for web navigation using Chrome and Edge.

**Hash Checker:** Built a utility to verify product hashes using Windows certutil.exe, and PowerShell.

**QGIS NLP Summarizing Tool:** Led a team to develop a tool for tracing supply chain issues and product malfunctions.

## PUBLICATIONS

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**J. Serra, ...**, "Validation of AI models for ITCZ Detection from Climate Data", Proceedings of the IEEE Conference on Data Science and Information Technology (DSIT '22), Shanghai, China, July 22-24, 2022

N. Tellez, **J. Serra, ...**, "Gauging Biases in Various Deep Learning AI Models", 2022 Intelligent Systems Conference (IntelliSys '22), In: Aria, K. (eds) Intelligent Systems and Applications, vol 544. Springer, [https://doi.org/10.1007/978-3-031-16075-2\\_11](https://doi.org/10.1007/978-3-031-16075-2_11)

## CERTIFICATIONS

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- **Amazon Certified Cloud Practitioner:** Earned from Amazon Web Services Certification and Training