**Angeles Marin Batana**

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**EDUCATION**

Ball State University  **May 2025**

***B.S Computer Science; B.S Spanish; Minor in Sociology*** *Muncie, IN*

* **GPA**: 3.5/4.0
* **Honors**: Departmental Honors in Computer Science; Dean’s List
* **Concentrations**: Data Analytics and Machine Learning; Language and Culture Studies

**WORK EXPERIENCE**

**Artificial Intelligence and Cybersecurity Research Assistant Oct. 2024 – Present**

*Ball State University Muncie, IN*

* Collaborating on a peer-reviewed paper for RE’25 (IEEE RE Conference).
* Building RAG pipelines using Python, OpenAI API, and ChromaDB to improve threat detection.
* Developing LLM-based framework for security requirement generation using CVE/NVD datasets and structured outputs for asset-threat mapping.
* Designed visualizations to effectively communicate with faculty and undergraduate researchers in weekly meetings to iterate on methodology, data quality, and model performance.
* **Tech Stack**: Python · OpenAI API (GPT-4) · ChromaDB · Transformer Models (BERT, RAG) · CVE Datasets · Pandas · LangChain · Markdown/LaTeX

**Big Data Analytics and Machine Learning Researcher May. 2024 – Jul. 2024**

*North Dakota State University Fargo, ND; Santiago, Chile*

* Researched scalable ML using swarm intelligence algorithms (Bat Algorithm) & Apache Spark.
* Implemented Bat Algorithm variants to optimize classification tasks by distributing either input data or swarm particles across cores.
* Evaluated performance across 7 core configurations (2–64 cores) and 10 dataset sizes (200-2000), using speedup and scaleup metrics to analyze computational efficiency.
* Presented findings at Universidad de Chile – Escuela de Ingeniería y Ciencias, highlighting scalability strategies for real-world machine learning applications.
* **Tech Stack:** Python · Apache Spark · Jupyter Notebooks · Git · RDDs · Matplotlib · NumPy · Pandas

**UX/ UI Researcher | Junior Project Manager Sept. 2023 – May 2025**

*The Digital Corps | Ball State University*  *Muncie, IN*

* Led and collaborated with cross-functional teams and university-wide clients and created user-centered UX/UI solutions supporting digital transformation initiatives.
* Conducted userinterviews, created wireframes, mapped userjourneys, and designed userflows to enhance usability and meet client needs.
* Presented design proposals and creative solutions to stakeholders, demonstrating strong communication skills and an ability to align design decisions with project goals.

**IT Operations Intern May 2023 – Aug 2023**

*Magna International Muncie, IN*

* Provided technical support by troubleshooting, hardware, and software, and configured computers for 100+ end-users on Windows 10, contributing to efficient IT operations and ensuring systems were fully functional.
* Leveraged QuickBase and PowerBI to analyze and visualize company-wide to understand company efficiency initiatives.

**TECHNOLOGIES & CERTIFICATIONS**

* **Technologies:**
  + **Programming Languages**: Python · Java · JavaScript · R · Swift · Ruby · C
  + **AI/ Data Science & ML Tools:** OpenAI API · LangChain · NotebookLM · ChromaDB · PyTorch · Scikit-learn · Apache Spark · Pandas · NumPy
  + **Tools:** Jupyter · GitHub · Docker · Firebase · Amazon S3 · PostgreSQL
* **Certifications:** 
  + DataCamp: Generative AI Concepts, Explainable Artificial Intelligence (XAI) Concepts, AI Security and Risk Management
  + CITI: Biomedical Responsible Conduct of Research, IUEHS Biosafety Training, NIH Recombinant DNA Guidelines