RILEY **PRIMEAU**

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SUMMARY:

As a Computer Science graduate with a minor in Mathematics, I have a strong foundation in computer science, specializing in deep learning and AI integration. I have experience in full-stack software development, implementing AI solutions, and building and deploying deep learning models. I am looking for a company that values professional growth and invests in its employees' development, where I can contribute to impactful projects while continuing to expand my skills.

SKILLS:

Programming Languages: Python, C++, SQL
Deep Learning Libraries: PyTorch, TensorFlow
Data Science Tools: Pandas, Numpy, Matplotlib, Scikit-learn
Cloud & Infrastructure: Docker, GCP, Azure, Git
Web and Mobile Development: React, Flutter, Flask
Databases: NoSQL (Firebase), PostgreSQL

WORK EXPERIENCE:

AI Architect Intern (Remote)
Azra Analytics, Burbank CA | October 2024 - Present

- Analyzed and worked with a TensorFlow-based binary image segmentation model provided by Intelon, adapting it for multi-class segmentation in an in-vitro fertilization (IVF) workflow.
- Implemented a custom Attention U-Net architecture in PyTorch with a pretrained ResNet encoder, fine-tuned on segmented oocyte data. Outperforms both the Intelon model and previous PyTorch implementations.

Software Development Advisor (Remote)
Entelligage, Tustin CA | October 2024 - Present

- Developed Retrieval-Augmented Generation (RAG) AI assistants for small to medium sized businesses utilizing Azure OpenAI coupled with prompt engineering; served through an intuitive React frontend.
- Focused on cloud-based development, interacting with Docker, Azure App Services and Container Apps, and Bicep templates for efficiently creating new infrastructure and deploying applications.
- Utilized Azure Cognitive Search, Azure Document Intelligence, and open source tools to create an advanced RAG pipeline, coordinated through a custom Python API to handle all document types.
- Managed the ingestion and cleaning of large amounts of company data stored in a variety of formats.

Machine Learning Researcher, Cybersecurity
Colorado Mesa University, Grand Junction CO - October 2022 | May 2024

- Conducted research on converting tabular data into image formats for ResNet-based classification on cybersecurity dataset, demonstrating technical experience in deep learning.
- Enhanced an existing tabular transformer model by redesigning its architecture to improve interpretability and reduce computational cost, achieving this without compromising on performance.
- Mentored junior researchers on deep learning techniques and project methodologies, fostering future development and collaboration within the team.

PUBLISHED WORK:

- Tabular-to-Image Transformations for the Classification of Anonymous Network Traffic Using Deep Residual Networks, IEEE Access, 11 October 2023. https://ieeexplore.ieee.org/document/10278393
- BIE: Binary Image Encoding for the Classification of Tabular Data, Journal of Data Science, 19 April 2024, https://doi.org/10.6339/24-JDS1122
- Transformers for Supervised Tabular Learning, IEEE Access, Status: Revision Before Submission

EDUCATION:

Bachelor of Science in Computer Science with a Minor in Mathematics - Graduated May 2024
Colorado Mesa University, Grand Junction, CO

REFERENCES:

Johnny Garcia - Founder of Entelligage
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James Halladay - Software Development Engineer at Amazon
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