Matthew Tran

Lynchburg, VA | (971) 407-0798 | matthewatran7@gmail.com www.linkedin.com/in/mtran7 | github.com/Matttran7 University of Portland | **BS Computer Science** Graduated - **May 2024**

SKILLS

Languages | Java, Python, C#, SQL, C++, Git, JavaScript, HTML, CSS, R

Technologies | .NET, Entity Framework Core, MS SQL Server, RabbitMQ, Docker, Blazor, Vue.js, React, Node.js Cassandra, Hadoop, TensorFlow, PyTorch

Development Tools | Unix/Linux, Visual Studio, Eclipse, JIRA, Android Studio, Git, GitHub, GitLab, GitTea

WORK EXPERIENCE

Machine Learning & Software Engineer | *Framatome*

Lynchburg, VA | August 2024 - Present

- Implemented automated categorization of user-submitted reports using <u>few-shot prompting</u> and <u>fine-tuned</u> <u>models</u> for <u>multi/binary classification</u>, achieving 90%+ accuracy.
- Applied <u>SMOTE</u> (Synthetic Minority Oversampling), <u>back-translation</u>, and <u>undersampling</u> to improve generalization and handle data imbalance.
- Built full-stack applications for report verification and data extraction using .NET (C#), Entity Framework Core,
 Python, MS SQL, Blazor (Fluent UI), and Vue.is.
- Designed RabbitMQ asynchronous pipelines and containerized services using <u>Docker</u> for scalable deployment.
- Led development of <u>LLM/VLM</u>-centered data extraction pipeline for nuclear site dose reports, reducing manual processing time by 80%.
- Collaborated with clients to gather requirements, align with compliance goals, iterate system capabilities and align deliverables.

Machine Learning Researcher | University of Portland

Portland, OR | June 2023 - May 2024

- Developed an AI system for constructing cognitive agents to simulate bilateral brain behavior in animals using deep learning and neural networks in .NET (C#).
- Improved agent exploration by 33% with fitness functions, optimized code for 50% agent performance improvement, and upgraded monitoring with <u>matplotlib</u>.
- Enabled scalable/replicable testing via multi-node cluster Hadoop distributed file system integration.
- Mentored two new hires using Agile, leading weekly scrum meetings, and directed feature planning.
- Presented findings at University of Portland's <u>Undergraduate Research Symposium</u> and <u>Founder's Day</u>.

Computer Science Grader | University of Portland

Portland, OR | August 2022 - Dec 2023

 Evaluated <u>Java</u> and <u>algorithms</u> assignments weekly, provided <u>code reviews</u>, and tutoring to help students understand <u>object-oriented programming</u> principles, <u>data structures</u> and <u>algorithms</u>.

PROJECT EXPERIENCE

Tektronix AR HoloLens | University of Portland Capstone (Tektronix)

Fall 2023

- Developed an AR tool with <u>Unity/C#</u> and <u>TensorFlow</u> (RNN, LSTM) for electromagnetic waveform predictions
 using continuous integration and Agile with client feedback.
- Implemented MySQL DB (2.5M+ records) for data quality and model assessment.
- Showcased project accomplishments at the University of Portland's <u>Shiley Showcase</u>.

Shogi | Object Oriented Design

Fall 2022

- Developed an <u>Android</u> game (Shogi) in <u>Java</u> using <u>Agile</u> (<u>Trello</u>) and <u>Test Driven Development</u> (<u>JUnit</u>), implemented core game logic and backend mechanics.
- Spearheaded architectural design, delegated tasks for the team during each scrum meeting.