LoR Draft of UW ECE PMP

December 30, 2025

To the Graduate Admissions Committee,

It is my pleasure to recommend Jyue-Ting Lin for admission to your graduate program. I am currently a Senior 5G NR Modem Software Engineer at MediaTek, and I serve as the Feature Project Manager for the "Traffic Pattern" initiative. I worked with Jyue-Ting closely and supervised her work for approximately one year while she served as a Modem Machine Learning Engineer in our 5G NR protocol software team. In my observation, she has consistently demonstrated steady execution, careful thinking, and a strong sense of ownership.

Jyue-Ting worked on the "Traffic Pattern" feature, which uses Layer-2 signals—such as uplink/downlink throughput and payload patterns—to infer user scenarios including gaming, video calling, and streaming. The modem uses these predictions to make real-time prioritization decisions and to improve power efficiency, so both latency and reliability are critical. In practice, the feature supports several downstream optimizations—for example, signaling UAI to guide layer/MCS/CDRX-cycle adjustments for power saving, applying VoIP call-handling strategies to improve call quality, and enabling low-latency "gaming" policies (e.g., the three-arrows mechanism).

One of her most impactful contributions was establishing a practical and scalable data engineering workflow for the project. At an early stage, our feature data came from multiple modem modules with inconsistent formats and ownership boundaries, which created a significant bottleneck for model development and validation. Jyue-Ting proactively designed and implemented a parsing and visualization tool to unify these sources. Beyond the implementation itself, she coordinated frequently with multiple module owners to clarify feature definitions, decide on an effective selection strategy, and identify the specific log traces required for reliable parsing. The resulting tool was robust and easy for the team to use, and it substantially improved our ability to inspect traffic behaviors, validate assumptions, and iterate on models efficiently.

She also handled a common but challenging issue in real deployments: data drift. When we observed performance degradation on customer field-trial logs, Jyue-Ting approached the problem systematically rather than applying quick fixes. She built a self-training pipeline to streamline retraining, refined the training flow, and fine-tuned models against updated distributions. Through this work, she achieved a verified 20% improvement in Precision/Recall metrics

in field tests, which was important for meeting commercial reliability requirements.

In addition to her technical strengths, Jyue-Ting is dependable and collaborative. She is patient in understanding others' needs and constraints, and she offers timely, practical suggestions that help the team align and move forward. She follows through on commitments and proactively identifies risks before they become blocking issues. She was also recognized with a MediaTek V-Award, reflecting her strong contributions and professional attitude.

Based on her consistent execution, rigorous problem-solving approach, and ability to work effectively across teams, I believe Jyue-Ting will do well in a demanding graduate environment and contribute positively to your cohort. I recommend her application with confidence.

Sincerely,