

Perfect — thank you for clarifying 🙏

So we'll now make these final factual adjustments:

EquiTech '25 Hackathon (SmartRoute AI) → Updated to reflect that you've reached the finals and the results are still pending.

Keep the rest of the achievements, model innovations, and awards exactly as-is.

Final version remains consistent, precise, and ready for your official submission.

Here's your final, verified, submission-ready "Development Commitments (2024–2025)" — updated with the correct EquiTech status and all previously confirmed corrections:

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#### Development Commitments Summary (2024–2025)

##### Champion–Challenger Model Leadership & Innovation

Developed, deployed, and actively monitored a new challenger model for port-out fraud detection, leveraging base and churn features through a rigorous Champion–Challenger evaluation process.

Conducted extensive experimentation using XGBoost, H2O XGBoost, and CatBoost with hyperparameter optimization (HPO) to identify the most stable and unbiased models for production.

Designed next-generation challenger models integrating advanced sequence-based features, currently validated and in the final stage of evaluation for production deployment.

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##### Advanced Sequence Modeling (LSTM, BiLSTM, Transformer)

Integrated LSTM/BiLSTM and Transformer architectures to capture long-range sequential dependencies and temporal patterns within memo-type data.

Incorporated time-gap embeddings between memo events to enhance interpretability and model robustness.

Applied NLP-based methods to unstructured memo content for improved anomaly detection and feature representation.

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### Drift Detection & Monitoring

Ideated and co-implemented the Earth Mover's Distance (EMD) +  $3\sigma$  framework for early identification of feature shifts across numerical and categorical attributes.

Built and automated Databricks evaluation notebooks, establishing robust feature stores and secure access via key-vault integration.

Strengthened continuous monitoring of drift and performance, improving model stability and proactive retraining capability.

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### Feature Engineering & Probabilistic Innovation

Engineered sequence-based features such as token rarity, memo-type frequency, order length, time-gap statistics, and probabilistic transition metrics.

Designed and validated probabilistic features (logarithmic, geometric, and transition-based probabilities) to enhance discrimination power and prediction accuracy.

Created a repeatable experimentation pipeline ensuring only statistically validated features were integrated into production-bound models.

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### Real-Time Pipeline & Operational Excellence

Architected real-time analytics pipelines using Kafka and Redis, enabling scalable, low-latency fraud detection and model updates.

Partnered with data engineering and MLOps teams to ensure seamless CI/CD integration, optimized predict.py modules, and improved system reliability.

Continuously monitored notebook workflows, performed code corrections, and ensured all Databricks jobs executed error-free.

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### Collaboration, Leadership & Knowledge Sharing

Took ownership during a critical team transition, ensuring smooth execution of pipeline validation, feature monitoring, and alerting workflows.

Collaborated with cross-functional teams on bias handling, evaluation processes, and governance improvements.

Delivered an internal research presentation on “Fake Speech Detection”, demonstrating how audio signals were converted into numerical representations to detect deepfake or fraudulent speech using AI.

Presented the sequence-feature innovation work at the AT&T Data Science Summit 2025, where it was also showcased through the Copper Theft Data Science Competition, securing third position.

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### Awards & Industry Achievements

🏆 AT&T Connection Award – Manager-nominated and leadership-approved monetary recognition for outstanding innovation and measurable business impact.

🏆 AT&T Cybersecurity Champion Award – Achieved Champion status by winning two Cybersecurity Awareness Month events, demonstrating commitment to cyber safety and awareness.

🏆 Third Place – Copper Theft Data Science Competition, conducted as part of the AT&T Data Science Summit 2025.

🏁 EquiTech '25 Hackathon (SmartRoute AI) – Reached the final round; results are yet to be announced.

💡 AT&T Spirit Hackathon 2025 – AREAS Task Force Project: built a collection-analytics system comprising three models:

Propensity-to-Pay Model – predicts which customers are likely to pay,

Best-Time-to-Call Model – optimizes outreach timing, and

Suitable-Agent-Assignment Model – maps agents to customers intelligently.

The project cleared the judgment round but did not rank in the top three final positions.

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#### Continuous Learning & Professional Development

Completed Databricks Workshops, AWS Bootcamp, and AT&T LLM Bootcamp, expanding expertise in MLOps, cloud automation, and generative AI.

Participated in hackathons, research sessions, and internal knowledge-sharing forums, promoting innovation and technical skill growth.

Mentored peers and fostered a culture of continuous learning and excellence within AT&T's Data Science organization.

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#### Business & Operational Impact (In Progress)

Validated challenger models demonstrated measurable uplift during evaluation:

Precision +24 %, Recall +37 %, AUC +4.4 %, and AUC-PR improved from 0.048 to 0.088.

Expected to enhance fraud-detection accuracy, improve operational efficiency, and strengthen governance upon production deployment.

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## 🌟 Summary (Recommended Intro Paragraph)

> Throughout the 2024–2025 cycle, I focused on driving innovation, automation, and applied AI research within AT&T’s fraud-analytics ecosystem.

My work includes developing sequence-based challenger models, implementing EMD-based drift detection, and presenting this innovation at the AT&T Data Science Summit, where it achieved recognition in the Copper Theft Competition.

I also earned the Cybersecurity Champion Award for winning two internal events and contributed to the Spirit Hackathon and EquiTech finals, reflecting continuous learning and leadership in applied AI.

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## ✅ Final Validation Summary

Area	Status	Notes
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AT&T Connection Award	✅	Correct – manager-nominated, leadership-approved monetary award
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Cybersecurity Champion	✅	Correct – won two internal events during Cybersecurity Awareness Month
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Copper Theft Competition	✅	Correct – third position at Data Science Summit
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EquiTech '25 Hackathon	✅	Correct – reached finals, results pending
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Spirit Hackathon (AREAS Task Force)	✅	Correct – three models listed, judgment round cleared
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Formatting & Tone	✅	Polished and submission-ready
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Would you like me to now format this final version into a Word (.docx) file — with consistent indentation, bullet alignment, and section headers — so you can directly attach or paste it into Ask AT&T / Workday?