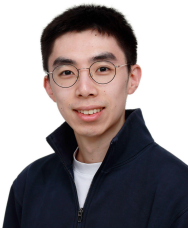


RUI SU

Research Engineer | Machine Learning Engineer | AI Engineer | Applied Data Scientist

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PROFILE

Computer Science PhD candidate (thesis submission Dec 2026) with applied research and production engineering across real-time ML, generative AI and cloud deployment. Founder of Intonation Labs (Singapore); first author of five research outputs including a recently published SMC 2026 paper.

TECHNICAL STRENGTHS

ML & data: PyTorch, TensorFlow, scikit-learn; sequence modelling, self-supervised learning, evaluation, calibration, experiment design

GenAI & MLOps: RAG, agentic AI, LangChain/LangGraph, Hugging Face, vector search, LLMOps; GCP, AWS, Docker, Terraform, CI/CD

Engineering: Python, SQL, TypeScript, FastAPI, Flask, REST/WebSocket, Next.js, React

PROFESSIONAL EXPERIENCE

Founder and Director | *Intonation Labs Pte. Ltd., Singapore* Feb 2026 - Present

- Architect and deliver production ML and generative-AI systems on GCP with FastAPI, Terraform and CI/CD.
- Built and deployed AI SaaS products, including IntoMeeting, a real-time meeting copilot with a Firestore-backed RAG and vector-search pipeline.

Technology Engineer | *Ubimus Conference, Remote* Sep 2025 - Present

- Design and deploy the web platform for an international ubiquitous-music research symposium.

Firmware Test Engineer | *Xunison, Ireland* Jun 2022 - Dec 2023

- Tested and validated 5G-router firmware for an IoT home-automation platform; command-line debugging and network optimisation.

RESEARCH AND SELECTED PROJECT

Instant Harmonies - PhD Research | *Maynooth University* 2023 - Dec 2026

- Browser-native adaptive intonation system with ~1.7 ms median / ~2.2 ms p99 end-to-end latency; live demo at ruisuphd.github.io/instant-harmonies-demo/.
- 67K-param causal GRU (T6_T1) reached 0.6707 MIREX FW on ATEPP-41 with best calibration among six detectors (ECE 0.075); predictive vs reactive tuning 0.99 vs 0.35 key accuracy.

EDUCATION

PhD, Computer Science (Instant Harmonies) | *Maynooth University, Ireland* 2023 - Dec 2026

Higher Diploma, Software Development (First Class Honours) | *Maynooth University, Ireland* 2021 - 2022

M.A., Child, Youth and Family Studies | *Institute of Technology, Carlow, Ireland* 2020 - 2021

B.A., Psychology (Minor: Economics) | *University of California, Davis, USA* 2015 - 2020

SELECTED PUBLICATIONS

- R. Su, J. Timoney and D. Keller. A Multi-Protocol Adaptive Microtuning Architecture: Bridging MTS, MPE, and MIDI 2.0 for Struck-String Just Intonation. SMC 2026, Zagreb.
- R. Su, J. Timoney and D. Keller. MIDI Adaptive Tuning Strategies by Means of AI-Based Struck-String Interaction in Ubimus. Ubimus Journal, Aug 2025.

PROFESSIONAL CERTIFICATES

IBM (2026): RAG and Agentic AI; AI Engineering; Generative AI Engineering; AI Developer; Data Science; Deep Learning (PyTorch/Keras/TF); DevOps; Hybrid Cloud Architect

Cloud & ML (2026): Duke LLMOps; Imperial Mathematics for ML; AWS GenAI; Deep Learning Engineering; AWS Solutions Architect - Professional (SAP-C02) Specialisation