SONG PEI-LING

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I am a Master's student in ITBE@TUM, focusing on BIM, semantic modeling, and API development. Experienced in automation, point cloud processing, IoT integration, and real-time visualization to support decision-making across the building lifecycle and advance AEC digitalization.

EDUCATION

- **Technical University of Munich** — Munich, Germany
  M.Sc. Information Technologies for the Built Environment — *Oct 2024 - Present*
  – Ministry of Education Government Scholarship to Study Abroad (GSSA)
- **Chung Yuan Christian University** — Taoyuan, Taiwan
  B.Arch. Architecture (GPA: 3.77 / 4.0) — *Sep 2018 - Jun 2023*
  – Excellent Performance in Professional Studies

PROFESSIONAL EXPERIENCE

- **SUNHOU Architects & Partners Association** — Taoyuan, Taiwan
  Research & Development — *Apr 2025 - Present*
  – Lead digital transformation by developing internal RAG system, Revit plug-ins, Stable Diffusion and n8n framework
  Working Student — *Sep 2020 - Jun 2022*
  – Executed a golf club interior renovation project *(GFA 80,000 sqft)* and an industrial factory project, including construction scheduling, detailed design, budget allocation, quality control, and MEP integration
- **ROCKS Interior Design** — Taoyuan, Taiwan
  Project Executive — *Jul 2022 - Aug 2022*
  – Led 2 major successes in architectural proposals, utilizing parametric design for complex geometric modeling, aiding in the re-planning of a 220,625 sq ft campus valued at US $3.4M+
- **OASISTUDIO Architect Office** — Yilan, Taiwan
  Intern — *Jul 2020 - Aug 2020*
  – Partnered with architects to secure 3+ projects, focused on the construction of historical building structures

LEADERSHIP & PROJECT EXPERIENCE

- **Real-Time Building Digital Model Reconstruction Using a Robotic Agent** *(CCBE Software Lab 25')* — *2025*
  – Developed a real-time pipeline on Go2 robot (ROS2 Humble) for SLAM-based point cloud acquisition and processing
  – Converted raw point cloud data into IFC-compliant semantic models automatically
- **Tree Species Classification & Multimodel Comparison** *(Data Science in Earth Observation 25')* — *2025*
  – Benchmarked Random Forest, XGBoost, CNN, RNN, Transformer on Sentinel-2 data, evaluating predictive performance
- **Indoor Ambient Monitoring** *(Geo Sensor Networks and the IoTs 25')* — *2025*
  – Integrated LoRaWAN time-series data via FROST API into real-time Cesium dashboard for comfort visualization
- **Interactive Visualization on Geothermal Energy** *(Interactive Visualization 25')* — *2025*
  – Developed a visualized dome installation on geothermal energy and showcased at the 1E9 Festival der Zukunft in Munich
- **Constraint Design in Timber Modular Process** *(AEC Hackathon Munich 24')* — *2024*
  – Developed a communication prototype for timber modular structures using PyRevit, collaborating with Drees & Sommer
- **Director, CYCU Architecture Digital Research Community** — *2020–2023*
  – Organized 10+ lectures and workshops on digital fabrication, CAD/CAM and programming, benefiting 200+ participants
  – Managed the digital fabrication laboratory for 2+ years, responsible for 50+ maintenance and operation tasks

AWARDS

- **Mark Winner, Golden Pin Design Award** — *2023*
- **Thesis Project Excellence Award**, Thermal Landscapes & Material Research — *2023*

SKILLS

- **Programming:** .Net Core (C#), HTML, CSS, JS, SQL, Python, Pandas, PyTorch | **Software:** Revit & Dynamo, Rhino & GH
- **Language:** English – Academic proficiency , German – Basic, Mandarin – Native language