

Yuri Moratelli Piske

CHEMICAL ENGINEER | R&D | TECHNICAL BUSINESS DEVELOPMENT

Chiba, Japan | yuripsk@gmail.com | linkedin.com/in/yuri-moratelli-piske

PROFESSIONAL SUMMARY

Chemical engineer and technical business-development professional with international experience across Brazil, Japan and Belgium. Combines laboratory research, industrial process development and client-facing commercial work. At MEAM International, led feasibility studies, pilot validation, equipment specification and customer implementation for industrial microwave heating, drying, pasteurisation, sterilisation and concentration. Completed a Japan market-entry assignment in October 2026, securing a local distributor relationship and coordinating Japanese partners with the Belgian headquarters. Based in Japan and currently advancing professional Japanese at Toyo Language School.

CORE EXPERTISE

Process and R&D

Experimental design, process optimisation, scale-up, data analysis, troubleshooting

Industrial Microwave

2.45 GHz and 915 MHz systems, dielectric heating, monomode processing, thermal and vacuum evaluation

Commercial and Market

Technical sales, market-entry strategy, distributor development, negotiations, client presentations

Project Delivery

Cross-functional coordination, requirements definition, commissioning, operator training, after-sales support

Analytical Techniques

HPLC, SEM, ICP-MS, XRD, SDS-PAGE, protein extraction, purification and crystallisation

Digital and Design

CAD, SolidWorks, Inkscape, Excel, PowerPoint; foundational Python and C++

PROFESSIONAL EXPERIENCE

R&D Scientist and Business Development Specialist | MEAM International

Belgium and Japan | Apr 2023 - 12 Oct 2026

- Managed industrial microwave projects from customer discovery and feasibility testing through pilot validation, equipment specification, commissioning, operator training and post-installation support.
- Designed and optimised processes for food, powders, liquids and biomaterials, covering drying, heating, pasteurisation, sterilisation, concentration and gelatinisation.
- Connected customer requirements with mechanical, electrical, manufacturing and commercial teams; converted experimental results into technical proposals and investment cases.
- Supported the sale and delivery of approximately 20 microwave systems through testing, solution design, quotation alignment and client implementation.
- Led the Japan market-entry assignment from Jul to Oct 2026: researched the market, approached customers and strategic partners, secured a Japanese distributor relationship, and coordinated technical and contractual discussions with headquarters.

Professor Assistant, Research Support and Translator | The University of Tokyo

Tokyo, Japan | Jun 2020 - Aug 2022

- Supported organic and analytical chemistry laboratory classes, including experimental procedures, safety, data interpretation and report preparation.
- Translated and edited research papers, methodologies, laboratory procedures and presentations in Japanese and English.

R&D Assistant | Bunge Alimentos

Brazil | Aug 2015 - Apr 2016

- Developed and evaluated new food products, including a flavoured cooking margarine that progressed to regional production and sale.
- Created a production-line analytical method, investigated quality deviations and supported algae-oil enrichment research.

SELECTED TECHNICAL PROJECTS

Rice and grain sterilisation: Optimised power, residence time, rotation and feed conditions in a 2.45 GHz rotary monomode system; reduced total plate count from 37,000 to approximately 500-900 and assessed scale-up to 915 MHz.

Food and biomaterial drying: Evaluated power, vacuum, temperature, time and final moisture for infant formula, insects and mycelium-based materials; proposed quality- and throughput-focused operating windows.

Milk pasteurisation: Related outlet temperature to ALP/LPO results and microbial control to define processing conditions that balanced safety and product quality.

Slurry and solution concentration: Assessed solids content, viscosity, vacuum, temperature and evaporation energy for plant-protein slurries and inorganic salt solutions.

Soil heat treatment: Validated high-temperature processing of 300 kg soil in a 60 kW pilot system, reaching approximately 80 C at the bottom within 25 minutes while assessing temperature distribution and power coupling.

RESEARCH EXPERIENCE

Doctoral Researcher in Agricultural and Life Sciences | The University of Tokyo

Tokyo, Japan | Apr 2020 - Sep 2022 (programme discontinued; degree not awarded)

- Investigated how shell-derived proteins influence calcium carbonate nucleation, crystal growth and polymorph control using HPLC, ICP-MS, SEM and SDS-PAGE.

Graduate Researcher in Chemical Science and Engineering | Hokkaido University

Sapporo, Japan | Sep 2017 - Sep 2019

- Designed and evaluated deterministic lateral displacement microfluidic devices for size-based separation of protein crystals, integrating device design, experiments and image analysis.

Research Student in Biochemical Engineering | Kyushu University

Fukuoka, Japan | Feb 2014 - Mar 2015

- Supported therapeutic-protein production research using genetically modified avian bioreactors; performed sample preparation, protein extraction, purification, HPLC and SDS-PAGE.

EDUCATION

Master of Chemical Science and Engineering | Hokkaido University, Japan | 2019

Bachelor of Chemical Engineering | Federal University of Santa Catarina, Brazil | 2016

Japanese Language Studies, JLPT N2 preparation | Toyo Language School, Tokyo | Jul 2026 - Present

LANGUAGES AND CERTIFICATIONS

Portuguese: Native | English: Fluent (TOEFL iBT 101) | Japanese: Professional conversational ability, JLPT N3; currently preparing for N2

Nationality: Brazilian and Italian (EU citizenship)