Yaotian WU

PhD in Analytical Chemistry | University of Geneva

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PROFESSIONAL PROFILE

Analytical Chemistry PhD (University of Geneva); Assistant to the Chief Scientist at QuikTech, an AI for Science (AI4S) company. Build the experimental data-quality foundations for an operational AI training–prediction–experiment loop. Advise board members on product strategy priorities and represent QuikTech in executive-level technical engagements.

PROFESSIONAL EXPERIENCE

QuikTech | Shanghai, China

Assistant to the Chief Scientist *Jun 2026–Present*

Assistant to the Chief Scientist Intern *Mar–May 2026*

EXECUTIVE REPORTING & TECHNICAL ADVISORY

- **Board-level technical advisory:** Advised QuikTech board members in external engagements and independently prepared and delivered technical reports to investors and partners on R&D capabilities, technology feasibility and implementation risks.
- **Technical due diligence & strategic partnerships:** Represented QuikTech as technical spokesperson for Boehringer Ingelheim's R&D due diligence and Agilent's partnership visit led by its Global CTO. Independently delivered technical presentations, lab tours and Q&A, then joined Agilent LC-system API integration discussions.
- **Product portfolio strategy:** Helped board members select 2 strategic priorities in response to fragmented, high-cost custom projects: drug-conjugation CRO services for a planned cloud laboratory and automated reaction workup/chromatography for instrument sales.

AI4S CLOSED-LOOP EXPERIMENTATION & R&D DELIVERY

- **AI4S closed-loop experimentation:** Contributed data-capture, process-monitoring and traceability requirements for 5 automated workstations underpinning an active experiment–AI loop: real experimental data train models, predictions guide selected reaction screening and experiments, and new results drive iteration. Consolidated and contributed to 60+ R&D and test documents totaling over 3 million Chinese characters.

- **AI training data quality & digital QA:** As the chemistry representative, co-led the experimental data quality system to strengthen the accuracy and traceability of real-world data used in AI model training. Improved SOPs and established end-to-end records of human interventions; proposed computer-vision verification of balance readings and pipetting execution, and partnered with software engineers to develop an integrated experiment-quality assessment reporting feature.
- **Scientific-to-engineering translation:** Served as liaison between Shanghai Institute of Organic Chemistry chemists and QuikTech hardware, software and operations teams, translating experimental workflows, data requirements and user feedback into actionable engineering specifications and system improvements.
- **High-throughput experimentation platform:** Completed the conceptual prototype and operating-principle design of an electrocatalysis platform intended for systematic reaction-condition screening; contributed to subsequent component selection and R&D coordination, with physical development still ongoing.
- **Technical validation & data reliability:** Supported acceptance preparation for 6 equipment modules in the national-level Molecular Editing and Intelligent Synthesis Research Facility at the Shanghai Institute of Organic Chemistry, defining measurable performance criteria, test conditions, interfaces and supporting evidence.

Eaglenos Science | Nanjing, China

Visiting Researcher *Jun–Aug 2025*

Contributed to the development of a blood electrolyte analyzer prototype integrating ion-selective electrodes, timed signal acquisition, and drift compensation. The method demonstrated an approximately 300% improvement in measurement precision compared with conventional potentiometry in human whole-blood calcium testing, with the findings published in Science Advances.

University of Geneva | Geneva, Switzerland

Doctoral Researcher / Teaching Assistant *Jun 2022–May 2026*

- **Research:** Developed a series of self-powered electrochemical sensors based on ion-selective electrodes, integrating electrochemical principles, signal processing, and circuit design to develop a next-generation, high-precision blood electrolyte analyzer prototype. Published 7 first-author SCI papers in journals including Science Advances, Analytical Chemistry, and ACS Sensors.
- **Teaching:** Trained 60+ undergraduate students in GC–MS workflows, including instrument operation, analytical methods and data interpretation.

EDUCATION

University of Geneva | PhD, Analytical Chemistry (Jun 2022–May 2026; advisor: Prof. Eric Bakker);

University of Geneva | MSc, Chemistry (Sep 2020–May 2022; advisor: Prof. Eric Bakker).

Southern University of Science and Technology | BSc, Chemistry (Sep 2015–Jun 2019).

HONORS

Award for Outstanding Overseas Study Elite, 2026, Ministry of Education of the P.R. China.

SCIENTIFIC PEER REVIEW

Peer reviewer for ACS Sensors and Sensors and Actuators B: Chemical (experimental design, methods and data quality).