

Samir Mukhida

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SUMMARY

Samir is an engineering and marketing professional obsessed with pixel-perfect product ownership. A pioneer in applying laser-induced fluorescence (LIF) instrumentation for pure water analytics, he is now a graduate student in Computer Science.

EXPERIENCE

METTLER TOLEDO | ADVANCED ANALYTICS DEVELOPMENT ENGINEER

Sep '21 - Present | San Diego, CA & Boston, MA (Remote)

- Hybrid R&D and Marketing role, using software development and data analytics toolset to advance strategic growth projects across the entire Thornton portfolio. Develop the technical strategies to influence organization thought leadership.
- Provide third level support regarding RMS (real-time microbial system) and associated technologies, with specialization in data integration and industrial communication.

METTLER TOLEDO | TECHNOLOGY & APPLICATIONS CONSULTANT

Jun '19 - Sep '21 | Los Angeles, San Diego, CA & Boston, MA (Remote)

- Worked with local Product Managers and eBusiness groups to develop opportunities, identifying and developing application solutions that deliver high value to the Pharmaceutical market.
- Transferred knowledge and data from application feasibility studies, industry applications, and technical literature for future product development. Participated in sustaining engineering and targeted product/process Improvement projects.
- Maintained knowledge of competitive and complementary technologies and solutions.

METTLER TOLEDO | GLOBAL APPLICATIONS ENGINEER

Jul '17 - Jun '19 | Los Angeles, CA & Boston, MA (Remote)

- Worldwide Subject Matter Expert for RMS (real-time microbial system) implementation in Pharmaceutical manufacturing.
- Leveraged by local marketing organizations along with producing organization to solve critical implementation challenges, participate in the sales process, provide on-site training, and deliver smooth integration experience for strategic accounts with global sales implications.
- Develop and support novel middleware solutions permitting use of instruments in new or existing smart manufacturing infrastructure. Liaise with controls and automation engineers to deliver the desired functionality to end-users.

METTLER TOLEDO | TECHNICAL SERVICE MANAGER

Sep '15 - Jul '17 | Tucson, AZ

- Technical adviser to product management, generating detailed technical manuscripts including whitepapers, manuals, SOPs, as well template marketing material.
- Worked with software engineering to enhance product's LabVIEW and Windows Embedded-based UI/UX, including new functionalities for field service.

INSTANT BIOSCAN | SERVICE MANAGER

Feb '15 - Sep '15 | Tucson, AZ

- Field and depot service program management.
- Primary integration support for several top ten biopharmaceutical and personal-care companies, including project management for worldwide deployment and validation efforts at global leading biotechnology company.
- Instrumental in supporting company growth and eventual \$30 million asset sale of the startup to Mettler-Toledo Thornton.

INSTANT BIOSCAN | ENGINEER

Sep '13 - Feb '15 | Tucson, AZ

- Early member of this startup, which developed, manufactured, sold, and serviced RMS (real-time microbial system) instruments—process analyzers which enumerate microbial cells within ultra-pure water using non-destructive optical methods.

SKILLS

TECHNICAL SKILLS

Proficient with:

Python • Visual Basic • LabVIEW • UNIX/Shell • DOS/Batch • Windows Embedded • PLC • Modbus • GIMP • MS Office Suite

Familiar with:

Perl • HTML • CSS • WordPress • Agile • Git • Docker • Arduino • United States Pharmacopoeia (USP)

SOFT SKILLS

Product Management • Research • Heuristics • Wireframes & Prototypes • CRM/ERP • Acquisitions • Training • Leadership • French

TECHNICAL PROJECTS

PRODUCT TRACKING DATABASE | Python (open-cv, re), Tesseract OCR, Microsoft (Power Automate, Azure)

April '21 – Nov '21 | METTLER TOLEDO

Building modules and end-to-end automation to extract, clean, and store product Information from manufacturing documentation, service reports, and diagnostic files to support data-driven product management.

DATA ANALYSIS TOOLS | Python (Pandas, NumPy, Matplotlib, Tk)

Mar '18 – Present | METTLER TOLEDO

Built a fully-documented visual analytics GUI in Python using ubiquitous data science libraries. Used by other team members and forked by R&D for their analytical needs. Leveraged fbProphet library in codebase for tunable time-series modeling and forecasting.

LABORATORY AUTOMATION | Python (Tk, open-cv), VNC, ModbusTCP

Oct '19 – Mar '21 | METTLER TOLEDO

Built a fully-documented remote control driver in Python for analyzer product. Implemented driver in GUI application to assist with automation of lab experiments.

PRODUCT DATA INTEGRITY | 21 CFR Part 11, Windows Embedded Standard 7

Dec '18 – Mar '19 | METTLER TOLEDO

Specify, develop, and test product firmware with enhanced data Integrity features in order to assist compatibility with 21 CFR Part 11 compliant customer operations.

GUI SIMULATOR | Visual Basic

Nov '16 – Dec '19 | METTLER TOLEDO

Built simulation application and installer for analyzer product's GUI, permitting demonstration of analyzer product's features and interface with minimal hardware dependencies. Used by sales groups around the world. Installed on products at tradeshow and sales laptops.

RESEARCH

ARIAS LAB | MIDWESTERN U, COLLEGE OF PHARMACY

Sep '11 – Apr '12 | Glendale, AZ

Drug discovery research involving β_4 nAChRs, 18-MC, and CHANTIX (varenicline). Administered cocaine injections to test animals and conducted motor-physical data collection and analysis in Prism [1].

RHOADS LAB | U ARIZONA, COLLEGE OF AGRICULTURE & LIFE SCIENCE

Aug '09 – May '10 | Tucson, AZ

Molecular and computational biology educational curriculum development as part of the Genomics Education National Initiative. Developed ligation-independent gene cloning protocols.

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY

MS-COMPUTER SCIENCE

In Progress | Atlanta, GA

THE UNIVERSITY OF ARIZONA

BS-MOLECULAR & CELLULAR BIOLOGY, PLANT SCIENCES

Dec '10 | Tucson, AZ Dean's List Honorable Mention

President's Award, AIMS Award

CERTIFICATION

FEDERAL COMMUNICATIONS COMMISSION (FCC)

TECHNICIAN-AMATEUR RADIO (HAM)

K17PUB

FEDERAL AVIATION AUTHORITY (FAA)

REMOTE PILOT (14 CFR PART 107)

Small Unmanned Aerial – General (Drone)

PUBLICATIONS

- [1] S. Mukhida & H. Arias: Role of the β_4 nicotinic receptor subunit in the anti-addictive activity of 18-methoxycoronaridine. Abstract & Poster, Federation of American Societies for Experimental Biology. Presented in San Diego, CA Apr '12