

LUAT (LUKE) NGUYEN

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TECHNICAL (IT) SKILLS

- Machine Learning, Predictive Analytics, Data Analysis/Visualization, Product Management
- Automation/Programming Languages: PowerShell, R, Python, SQL, RegExp, Pipeline Pilot Scripting
- Productivity/Business Applications: O365, MS SharePoint/Teams/Power Automate, Confluence, JIRA
- Windows, macOS, Linux, VDI/VM. Security: Encryption, Access Controls, Antivirus Solutions
- Hardware: Workstation/Desktop/Laptop Systems, Mobile Devices, Peripherals

WORK EXPERIENCE

January 22 – March 2024

Senior Specialist, Product Analyst, Technical Product Management (Merck, South San Francisco, CA)

- Led cross-functional collaborations to strategically align the product model with key stakeholders and Merck Research Laboratory (MRL)'s global objectives.
- Led efforts in planning, enterprise architecture, solution design, agile software development, systems integration, and operational strategy execution. Partnered with cross-functional IT teams to develop technology roadmaps that aligned with organizational goals.
- Streamlined system image and software package management through automated deployment, significantly enhancing efficiency and reducing manual intervention.
- Provided high-level technical support, effectively troubleshooting hardware and software issues to ensure optimal performance and maximize uptime.
- Successfully spearheaded the initial product analysis for the eROP (enhanced Research Operation Plan) AI/ML acceleration project, focusing on small molecules and peptides. This initiative was aimed at improving ADME/Toxicity decision-making and streamlining logistical requests to support more strategic risk-taking. [Received an INSPIRE award recognized by the management.](#)
- Received [25 INSPIRE awards](#) (since joining Merck 'til 2024) in the following categories: Win As One Team, Build a Diverse and Inclusive Culture, Drive Results, Foster Collaboration, Knowing to Learning, Silos to Networks, Withholding to Sharing

October 17 – December 2021

Senior Specialist, Business/Tech Analysis, Discovery Research IT (Merck, South San Francisco, CA)

- As the sole on-site Merck IT leader, directed the development and implementation of business-aligned IT strategies, site policies, and best practices to ensure seamless alignment with organizational goals.
- Delivered comprehensive IT support for site relocations, infrastructure upgrades, decommissioning activities, and data management (compute/storage/backup), while adhering to security best practices.
- Enhanced user autonomy by creating and maintaining comprehensive knowledge base articles, user guides, and training materials, fostering innovation and adoption.
- Collaborated with diverse IT teams and business stakeholders to gather requirements and deliver IT solutions that improved user productivity and supported organizational growth.
- Led the development and deployment of a cross-functional, cloud-based application to centralize research equipment management, utilizing Microsoft SharePoint, Teams, and Power Automate.
- [Served as a member of the South San Francisco MRL Extended Leadership Team \(XLT\), contributing to the development of a unified site culture and fostering an enterprise-wide leadership mindset.](#)

March 14 – February 17

Senior Business Analyst, Drug Discovery Systems (Pfizer/Medivation, San Francisco, CA)

- Served as go-to person driving strategic IT partnerships in Research, Informatics, and AI/ML
- Spearheaded technology and business convergence through comprehensive planning, innovative solution design, and forward-thinking strategies that drove excellence
- Shielded end user devices and data with robust security measures, including encryption and access controls, fostering trust and reliability
- Led and coordinated projects from initiation through deployment
 - Served as BA for in-house database-driven (agile) application development and COTS deployment. Recognized for IT Excellence & Innovation enterprise application development
 - Coordinated the support for the Next Generation Sequencing (NGS) environment. Ensured compliance with regulatory requirements and industry best practices

May 11 – February 13

Informatics Associate, Project Management (Evotec, South San Francisco, CA)

Spearheaded Research IT/informatics engineering efforts, designing and implementing scalable data pipelines, ETL processes, and informatics workflows that empowered scientists and researchers.

Collaborated with cross-functional teams to develop and deploy custom database queries, Pipeline Pilot workflows, and web-based applications, ensuring seamless user experiences and optimized workflows. Ensured data quality and integrity through rigorous QC, analysis, and visualization, supporting compound management and software development teams in building and managing robust informatics infrastructure. Successfully curated and managed large-scale datasets (1M+ records) for prestigious clients, including NIH, NCI, EPA, and biopharmaceutical companies, contributing to contract wins totaling \$90M+.

September 03 – June 09

Computational Research Specialist, Modeling & Informatics (VM Discovery, Inc., Fremont, CA)

Transformed drug discovery through pioneering data-driven insights, developing and implementing cutting-edge, tailored IT/informatics solutions that empower researchers, and leading innovative data analytics initiatives to unlock the full therapeutic potential of small molecule therapies and research programs, ensuring seamless user experiences, optimized workflows, and scalable infrastructure to accelerate scientific breakthroughs.

- Pioneered first-in-class treatments with patents [US8586619B2](#) and US60/894,368, driving spin-offs of VM Therapeutics LLC, VM Pharma LLC, and VM Oncology LLC
- TrkA program successfully exited to Purdue Pharma for up to \$213 million and secured up to \$2 million in NIH grants for the PKC Epsilon program, fueling innovation and growth

February 02 – February 03

Research Scientist, Membrane Biology (Proteomic Systems, Inc., Sunnyvale, CA)

A start-up (later known as Synamem Corp), planned, executed, and analyzed fluorescence-based assay experiments that helped validate micro-arrayed MembraneChip technology. ([See patent US6699719B2](#))

February 00 - October 01

Research Scientist, Computational Modeling/Chemistry (ArQule, Inc., Menlo Park, CA)

Designed and implemented informatics solutions, leveraging data mining and algorithm development to optimize ADMET predictive models. Integrated new methods into MOE software, including CytP450 2C9 enzyme binding affinity and conformational search modules. Developed automation scripts for complex data analysis and created molecular descriptors to build predictive models, streamlining research workflows and enhancing user experience.

EDUCATION

B.S. in Biochemistry/Chemistry - University of California, San Diego (Revelle College), 1999

Area of Focus Requirement: Economics & Computer Science

UCSD Computer Science Coursework:

- Introduction to Computer Science (C++)
- Basic Data Structures and Object-Oriented Design (C++)
- Introduction to Discrete Mathematics
- Mathematics for Algorithm and Systems
- Computer Organization and Systems Programming (Assembly Language)
- Advanced Data Structures (C++)
- Introduction to Artificial Intelligence: Search and Reasoning (Common Lisp)
- Chemistry & Computer Programming (C++)

MOOC Coursework/Certificates:

- [Introduction to Responsible AI, Google, Coursera](#)
- [Introduction to Large Language Models, Google, Coursera](#)
- [Introduction to Generative AI, Google, Coursera](#)
- [Advanced React, Meta, Coursera](#)
- [Programming with JavaScript, Meta, Coursera](#)
- [HTML and CSS in depth, Meta, Coursera](#)
- [Introduction to Front-End Development, Meta, Coursera](#)
- [Introduction to Back-End Development, Meta, Coursera](#)
- [Introduction to Mobile Development, Meta, Coursera](#)
- [AWS Fundamentals: Addressing Security Risk, Amazon Web Services \(AWS\), Coursera](#)
- [AWS Fundamentals: Going Cloud-Native, Amazon Web Services \(AWS\), Coursera](#)
- [AI For Everyone, deeplearning.ai, Coursera](#)
- [Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization, Coursera](#)
- [Neural Networks and Deep Learning, deeplearning.ai, Coursera](#)
- [Drug Discovery, University of California - San Diego, Coursera](#)
- [Drug Development, University of California - San Diego, Coursera](#)
- [Making Biologic Medicine for Patients: The Principles of Biopharm. Manufacturing, MIT, edX](#)
- [Command Line Tools for Genomic Data Science, Johns Hopkins University, Coursera](#)
- [Python for Genomic Data Science, Johns Hopkins University, Coursera](#)
- [Introduction to Genomic Technologies, Johns Hopkins University, Coursera](#)
- [Machine Learning With Big Data, University of California - San Diego, Coursera](#)
- [Graph Analytics for Big Data, University of California - San Diego, Coursera](#)
- [Introduction to Big Data Analytics, University of California - San Diego, Coursera](#)
- [Hadoop Platform and Application Framework, University of California - San Diego, Coursera](#)
- [Introduction to Big Data, University of California - San Diego, Coursera](#)
- [Scalable Machine Learning, University of California - Berkeley, edX \(Python/Spark\)](#)
- [Introduction to Big Data with Apache Spark, University of California - Berkeley, edX \(Python/Spark\)](#)
- [Machine Learning \(Octave\), Stanford University, Coursera](#)