LENNART LANGOUCHE

lennart.langouche@gmail.com LinkedIn@lennartlangouche GitHub@lenlan Website: @lenlan.github.io

EDUCATION

University of California, San Diego (UCSD)	**PhD**	Nanoengineering, focus: Biomedical Nanotechnology	**2021**
Rady School of Management, UCSD	**Certification**	Mini-MBA	**2018**
KU Leuven, Chalmers (dual degree)	**MS**	Nanoscience and Nanotechnology	**2013**
KU Leuven	**BS**	Engineering (major: electrical, minor: mechanical)	**2011**

TECHNICAL SKILLS

Data Analysis (Python, R, MATLAB)	SQL	PCR/dPCR
Cloud Compute (Oracle)	Machine Learning (Scikit-learn, PyTorch)	Microscopy
Experimental Design	Data Visualization (Matplotlib, Tableau)	Image Processing (Fiji)

CAREER EXPERIENCE

IQVIA **| Senior Strategy Consultant, Life Sciences** *AUG 2021 – APR 2023*

Managed projects and teams to solve complex business cases for major pharmaceutical companies and biotech firms. Topics include competitive intelligence, financial forecasting, opportunity assessment, pricing and market access, and product life cycle strategy. Representative projects:

- Led a team to investigate SKU launch strategies for oral oncolytics and explore implications for stakeholders and product life cycle management using primary and secondary research.
- Managed a team to compile and analyze competitive intelligence data and perform additional secondary research to inform pricing strategy for a major pharmaceutical company.
- Assessed commercialization potential of blockbuster follow-on drug using KOL/prescriber interviews, conjoint and analogue analysis.

UCSD @Fraley Lab **| PhD Researcher in Biomedical Nanotechnology** *SEP 2015 – SEP 2021*

Helped develop a custom digital-PCR high-resolution melt platform for infectious disease diagnostics. My contributions:

Project 1: Spearheaded project to find the resolution of the digital PCR-based infectious disease diagnostic platform, using noise modeling and data augmentation, allowing for benchmarking against established technologies.

- Improved data processing pipeline to transform microscopy image stack into loss-of-fluorescence time series data using image analysis and processing tools in ImageJ and Matlab, and implemented artifact removal.
- Used Python and R to compare performance of machine learning methods for a multi-class time series classification problem to identify pathogens, using their melt curve 'signature'.
- Presented research at the UC AI in Biomedicine Conference and published results in Bioinformatics.

Project 2: Applied a probabilistic machine learning approach for anomaly detection, used for novel genotype detection.

- Used Scikit-Learn to compare five ML methods for the task of anomaly detection on the lab's melt curve data: Logistic Regression, Naïve Bayes, Support Vector Machines, Neural Networks and Random Forest.

Illumina **| Product Management Intern** *JUN 2018 – DEC 2018*

- Formulated market development strategy including voice of customer, competitive and technological analysis, and financial forecasting. Presented findings to upper management, leading to a 15% YoY budget increase.

APD Consulting Club @UCSD **| Vice-President External Affairs** *SEP 2016 – AUG 2018*

- Led initiatives to build and strengthen the organizations' marketing, communications, and relationships with consulting firms around the country, and organized networking and consulting competition events.

Blue LINC Biomedical Incubator @UCSD **| Incubatee** *AUG 2017 – APR 2018*

- One-year immersion into the Stanford Biodesign curriculum taught by entrepreneurial leaders
- Led a four-member team that assessed the business viability of product solutions to pneumothorax as a complication of percutaneous chest biopsy.