

# KATRIN MROTZECK

Lisbon, Portugal / Remote • +351 926 148 023 • katrin.mrotzeck@gmail.com • [Github](#) • [Kaggle](#) • [Linkedin](#)

## PROFESSIONAL SUMMARY

---

**Multilingual Data Analyst & Product | Biomedical Engineering Background** English- and German-speaking professional based in Lisbon, with 4+ years in HealthTech development. Leveraging a strong foundation in **R (Tidyverse, ggplot2)**, **SQL** and **Python**, I transform complex datasets into strategic insights - most recently demonstrated by an end-to-end analysis of consumer health behavior (Bellabeat Case Study). I combine technical data modeling with a Product Manager's mindset to drive measurable outcomes and data-driven decision-making.

## CORE STRENGTHS

---

Analytical Problem-Solving | Actionable Data Insights | Strategic Stakeholder Management | Visual Communication & UX Design | Global Business Acumen | Iterative Thinking

## TECHNICAL SKILLS

---

**Data Analytics:** R (Tidyverse, ggplot2, dplyr, lubridate), Python (Pandas, Matplotlib), SQL, C++

**Data Visualization & Reporting:** ggplot2, R Markdown, MS Excel, Google Sheets.

**Product & Project Management:** Jira, Confluence, Miro, Figma (UI/UX Review), Slack.

## TECHNICAL PROJECTS

---

**Bellabeat Data Analytics Case Study** | Tools: R (Tidyverse, ggplot2, dplyr, lubridate), Kaggle ([Link to Kaggle Notebook](#))

- **Conducted an end-to-end analysis** of Fitbit consumer behaviours and health data to identify growth opportunities for women-focused health-tech products.
- **Utilized R and dplyr** to clean and merge complex datasets, identifying a 73% "Nighttime Gap" in user sleep tracking engagement.
- **Developed professional visualizations** with ggplot2 to translate behavioral patterns into actionable marketing recommendations.
- **Proposed data-driven strategies** to improve device auto-detection, aiming to double user data retention.

## PROFESSIONAL EXPERIENCE

---

**Independent Entrepreneur | Product Development & Market Exploration** Jan 2025 - present

- Managing end-to-end business operations, from initial product concept and branding (Figma) to market launch.
- Utilizing customer feedback and market observation to iterate on product design and improve user engagement.

**Product Manager | PLUX – Wireless Biosignals, S.A.** Jan 2023 - Jan 2025

- **Data-Driven Optimization:** Analyzed user interaction data to redesign the mobile app onboarding flow, reducing time-to-data acquisition significantly across alpha and beta testing phases.
- **Exploratory Data Analysis (EDA):** Leveraged customer usage patterns to identify friction points, resulting in new feature prioritizations on the product roadmap.
- **Cross-Functional Strategy:** Acted as the data liaison between R&D and end-users, translating complex biosignal data requirements into clear technical specifications and user value.

# KATRIN MROTZECK

Lisbon, Portugal / Remote • +351 926 148 023 • katrin.mrotzeck@gmail.com • [Github](#) • [Kaggle](#) • [Linkedin](#)

## EDUCATION

<b>Master of Science in Biomedical Engineering</b> Technical University of Applied Sciences Lübeck	Sept 2017 - Sept 2020
• <b>Core Focus:</b> Advanced Signal Analysis • <b>Technical Application:</b> Leveraged Python for complex signal processing, feature extraction, and algorithm development. • <b>Master's Thesis:</b> "Development of an Assistive Communication Device for ALS Patients" - Engineered a real-time signal processing pipeline to detect and classify muscle activity triggers.	

<b>Bachelor of Science in Biomedical Engineering</b> Hamburg University of Applied Sciences	March 2012 - Aug 2017
--	-----------------------

## PROFESSIONAL EXPERIENCE CONTINUED

<b>Product Expert   PLUX – Wireless Biosignals, S.A.</b>	Nov 2020 - Jan 2023
• <b>Technical Project Advising:</b> Conducted biosignal data feature extraction and analysis for research partners using Python, ensuring high data integrity for clinical and educational studies. • <b>Quantitative Research:</b> Developed, executed, and analyzed "Voice of the Customer" (VoC) surveys, transforming raw feedback into statistical summaries for stakeholders. • <b>Process Improvement:</b> Created knowledge base articles, reducing recurring support tickets significantly through data-informed content creation. • <b>Academic Mentorship:</b> Supervised 5+ student projects and Master's theses, providing technical guidance on data collection and experimental protocols.	

<b>Internship Research Software Engineer   PLUX – Wireless Biosignals, S.A.</b>	Sept 2019 - Nov 2020
• Developed Python/C++ algorithms for real-time biosignal feature extraction (ECG, EMG) for ALS patient communication tools. • Executed user-centered data acquisition and experimental setups using wearable sensors.	

<b>Internship   PLUX – Wireless Biosignals, S.A.</b>	Feb 2019 - May 2019
• Processed physiological data (EEG, fNIRS) using Python and created technical tutorials for customer knowledge bases.	

## EARLY CAREER & INTERNSHIPS

<b>Working student R&amp;D   Olympus Surgical Technologies Europe</b>	Oct 2017 - Jan 2018
• Supported laboratory testing and experimental protocol documentation for R&D projects.	
<b>Internship R&amp;D   Olympus Surgical Technologies Europe</b>	Sept 2016 - Sept 2017
• Conducted medical device development experiments and completed Bachelor's thesis.	
<b>Working student QM &amp; Regulatory Affairs   Waldemar Link GmbH &amp; Co. KG</b>	May 2015 - May 2016

## CERTIFICATES

Google Data Analytics Professional Certificate ([Link to Certificate](#))

## LANGUAGES

German - Native | English - Professional | Portuguese - Beginner

## INTERESTS

Nature | Hiking | Surfing | Yoga | Beachvolleyball | Gardening | Cooking | Skating