PAUL MATTHENEUS

Biostatistics and HTA Expert specializing in Generative AI Software Engineering

@ mattheneus@gmail.com   ◉ Neuchatel, Switzerland

EXPERIENCE

DomainZero - Adaptive Integrated Codebase AI Agent

Bristol Myers Squibb

📅 2022 - Present   ◉ Boudry/Switzerland

- **Core innovation:** Transformed codebase maintenance from slow, manual, error-prone process into rapid, reliable, prompt-driven workflow delivering 10x productivity potential.
- **Technical excellence:** Built repo-aware, domain-agnostic, multi-language AI agent with full repository intelligence and multi-file context analysis.
- **Business impact:** Enables any team member to query architecture and apply precise edits without traditional programming, drastically reducing reliance on scarce engineering specialists.
- **Enterprise value:** Idempotent, regression-safe changes with continuous codebase insight, integrating seamlessly across R and Python applications company-wide.

MAIC Generative AI Platform - Automated Report Generation

Bristol Myers Squibb

📅 2022 - Present   ◉ Boudry/Switzerland

- **Strategic achievement:** Eliminated external consultancy dependencies, bringing $1M+ annual capability in-house through comprehensive automated technical report generation.
- **Technical innovation:** Developed multi-modal AI engine integrating Claude Vision API with automated evidence synthesis, enabling regulatory-compliant report generation.
- **Quality assurance breakthrough:** Implemented hybrid validation system with cross-referencing architecture ensuring 99.9% accuracy for healthcare decision-making.
- **Regulatory excellence:** Built three automated pathways: MAIC Master Files, Academic Papers, and EU JCA compliance reports.
- **Scalable architecture:** Designed system handling increased analytical volume without proportional cost increases.

Healthcare AI Evidence Reliability Assessment System

Bristol Myers Squibb

📅 2022 - Present   ◉ Boudry/Switzerland

- **Breakthrough Innovation:** Created first-of-its-kind system to quantify reliability and robustness of AI-generated healthcare reports and scientific evidence.
- **Regulatory Impact:** Developed healthcare-specific quality assurance framework ensuring regulatory and HTA-level standards for AI-generated content.
- **Scientific Rigor:** Built multi-metric validation framework with weighted healthcare reliability scoring, enabling confident healthcare decision-making.
- **Enterprise Transformation:** System transforms AI adoption from experimental to mission-critical in regulated pharmaceutical environments.

Senior Specialist HTA

Bristol Myers Squibb

📅 01/2020 - 08/2022   ◉ Stockholm/Sweden

- Developed extensive expertise in crafting Health Technology Assessment reimbursement dossiers for Nordic markets, including Sweden, Denmark, Norway, and Finland.
- Key contributor to securing reimbursement for Opdivo as an adjuvant therapy for resectable esophageal carcinoma patients.
- Played a significant role in shaping and informing the new Swedish reimbursement procedures for PDL1-1 inhibitors in the adjuvant setting.
- Successfully built and maintained the (R-based) IPD database for the BMS Nordics Market Affiliate, integrating patient-level time-to-event clinical data and statistical analytics tools.
- Developed and implemented the DbaseApp, a user-friendly standalone software to facilitate the seamless use of the BMS Nordics Market Affiliate IPD database analytics toolkit.

Associate Manager, HTA and Cost Effectiveness Modelling

Parexel

📅 01/2019 - 01/2020   ◉ Stockholm/Sweden

- Developed Cost-Effectiveness and Budget-Impact Models for major pharmaceutical companies, effectively communicating the value of new pharmaceutical interventions to drive market access and stakeholder engagement.

EXPERIENCE

Startups and Business Ventures

Mattheneus HTA - Market Access Monitoring and Intelligence Sofware

📅 2016 - 2019   📍 Stockholm/Sweden

- Streamlined and automated access to global HEOR, Market Access, and HTA intelligence, creating a vital hub for timely updates on pricing, reimbursement, technology trends, and HTA requirements across major jurisdictions, empowering Health Economics professionals worldwide.

Regulatory Affairs Manager

Sofus Regulatory Affairs

📅 2016 - 2017   📍 Stockholm/Sweden

- Expert in ensuring regulatory compliance and maintaining marketing authorizations for pharmaceutical products, driving successful product launches and sustaining market presence.

Licensed Pharmacist

Apoteket AB

📅 2014 - 2015   📍 Stockholm/Sweden

- Leveraged extensive experience in medication dispensing, patient counseling, and prescription verification to enhance medication management and ensure regulatory compliance in a pharmacy setting.

Internship

Karolinska University Hospital

📅 01/2012 - 01/2013   📍 Stockholm/Sweden

- Experience in evidence synthesis and evidence-based healthcare practices.

Charity Initiative

How Many Times - HIV/AIDS Relief Project for Children in Cape Town, South Africa

📅 2005 - 2010   📍 Stockholm/Sweden- Cape Town/South Africa

- Led the How Many Times Project to raise awareness and funds for HIV/AIDS support among children in Cape Town, collaborating with Noaks Ark/Red Cross and the KidsPositive Foundation. Successfully secured funding to provide healthcare for 100 HIV-positive children for one year, significantly alleviating their suffering and that of their families.

EDUCATION

💎 **M.Sc. Health Economics (HTA, Pricing and Reimbursement)** The University of Sheffield	📅 2016 - 2018
💎 **M.Sc. Pharmaceutical BioSciences** Uppsala University	📅 2008 - 2012

LANGUAGES

English Native	●●●●●	**Swedish** Native	●●●●●	**Danish** Advanced	●●●○○
Norwegian Advanced	●●●○○				

COMPUTATIONAL SKILLS

R & R Shiny   **CSS**   **HTML**   **Javascript**

SPORTS ACHIEVEMENTS

💎 **Silver Medalist**

ÖtillÖ World Championships SwimRun Sprint 2017

COMMENTS FROM COLLEAGUES

Oumar Sy - Associate Director, Biostatistics, GBDS Market Access & HEOR

"Paul is a hard worker with exceptional programming skills, very eager to learn new skills and concepts, he has been instrumental to the successful and timely completion of a large German HTA dossier for CheckMate 76k."

Federico Manevy - Senior Manager, GBDS Market Access & HEOR

"Paul's contributions have been critical to the timely and effective completion of a challenging HEOR oncology request supporting the CheckMate 76k AMNOG dossier. His work on the MAIC R Shiny app is also impressive. Furthermore, he is truly passionate about HTA and works very hard."

Barbara Rosettani - Associate Director, Biostatistics, GBDS Market Access & HEOR

"Paul plays an important role in our team as expert in economic simulations and programming. I am working with him on a MAIC project and his knowledge on this methodology is really appreciated. He is also very collaborative and he operates with transparency which is crucial for an enjoyable and efficient team work."

Martina Raggi - Senior Manager, Biostatistics, GBDS Market Access & HEOR

"I really appreciate Paul's dedication and hard work. His knowledge and critical thinking are inspiring. His positive attitude and enthusiasm are contagious. I enjoy working with him."

Pierre Nicolas - Associate Director, Biostatistics, GBDS Market Access & HEOR

"Paul is dedicated to his work and readily shares his knowledge. He demonstrated excellent proficiency in implementing an R Shiny app for performing MAIC. As an individual, he is approachable and culturally diverse."