

Yerman J. Merel G.

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Mechanical Engineer with international experience in large scale infrastructure projects. I've contributed to key tunneling projects in Panamá, Perú and Germany, combining technical design with hands-on field execution from static analysis to FAT protocols and lifting strategies. I bridge the gap between design and reality, delivering efficient, reliable, and field-proven engineering solutions.

EDUCATION

Technology University of Panama

Bachelor of Science in Mechanical Engineering

Relevant Coursework: *Numerical Computations, Feedback Control Systems*

Panama City, Panamá

Jan 2018 – Dec 2025

PROFESSIONAL EXPERIENCE

Herrenknecht Tunnelling Services Panama Corp.

Project Engineer

Panama City, Panamá

Jan 2025 – Jul 2025

Perú Operation (3 months) – On site

- Managed on-site engineering responsibilities for critical TBM component replacement, coordinating equipment logistics, assembly procedures, and quality verification.
- Executed multi-mode TBM track replacement operation as Project Engineer, performing preventive maintenance on main drive system to ensure continuous excavation capability.

Germany (4 months) - Hudson River Project (USA) – On site

- Produced technical documentation including FAT reports, inspection protocols, and design optimization recommendations adopted by project teams.
- Conducted Factory Acceptance Testing (FAT) for main bearing system alongside client representatives, ensuring compliance with technical specifications and performance standards.

China Railway Tunnel Group Co., LTD

Field Engineer of Tunnel Boring Machine and Survey Facilities (Intern)

Panama City, Panamá

Aug 2024 – Jan 2025

- Eliminated 100% of severe pipeline incidents by designing and implementing corrective solutions including support systems for unstable terrain, pipe handling methods, and provisional sections for operational continuity.
- Developed standardized technical documentation adopted as official reference guide by project Quality Control and Engineering teams for surface and underground operations.
- Verified existing pipeline systems through inspections, pressure testing, and assembly analysis across tunnel operations
- Restored client confidence and mitigated contractual penalties by resolving critical system failures threatening project timeline and contract validity.

CERTIFICATIONS & COURSES

- A Hands-on Introduction to Engineering Simulations** – Cornell University, Expected (Nov 2025)
- Design of Industrial Piping Systems Specialization** – Larsen & Toubro EduTech, Expected (Nov 2025)
- Design of Thermofluidic System** - Technology University of Panama (Aug 2023)
- Fluid Technology, Hydraulic and Lubrication** - HERRENKNECHT AG (Jun 2025)

ADDITIONAL

Technical Skills: Advance in CAD (SolidWorks, AutoCAD, Inventor), ANSYS, Microsoft Office

Programming Skills: Proficient in Python, MATLAB, JavaScript

Languages: Spanish (Native); English (Full professional proficiency); German (Elementary Proficiency)

Awards: Scientific Research Finalist – Presented dynamic vibration project at national conference (Sep 2023).