

# Yerman J. Merel G.

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Mechanical Engineer with international experience in large-scale tunneling and infrastructure projects across Panama, Peru, and Germany. Skilled in bridging design and execution phases, with hands-on expertise in static analysis, FAT procedures, and equipment installation. Recognized for delivering efficient, field-proven engineering solutions that enhance reliability, safety, and performance.

## EDUCATION

**Technology University of Panama**  
Bachelor of Science in Mechanical Engineering  
*Relevant Coursework: Numerical Computations, Feedback Control Systems*

Panamá City, Panamá  
Jan 2018 – Ago 2025

## PROFESSIONAL EXPERIENCE

**Herrenknecht Tunnelling Services Panama Corp.**  
Project Engineer

Panamá City, Panamá  
Jan 2025 – Jul 2025

### Perú Operation (3 months) – On site

- Managed on-site engineering activities for TBM component replacement, coordinating logistics and quality checks that reduced assembly time by **10%** and ensured **zero operational delays**.
- Executed multi-mode TBM track replacement operation and preventive maintenance on the main drive system, maintaining **100% operational uptime** during excavation.

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

- Produced FAT reports and design optimization recommendations adopted by project teams, improving assembly accuracy by **15%** and ensuring **compliance with international FAT standards**.
- 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 Superficial Facilities (*Intern*)

Panamá 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 an official reference by QC and Engineering teams, **reducing field errors by 20%** and improving cross-team efficiency.
- Verified existing pipeline systems through inspections, pressure testing, and assembly analysis across tunnel operations
- Resolved critical system failures threatening project deadlines, **preventing potential penalties of over \$250,000** and restoring client confidence.

## TRAINING & COURSES

- **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, SAP Business Suite  
**Programming Skills:** Proficient in Python, MATLAB, JavaScript  
**Languages:** Spanish (Native); English (C1 - Full professional proficiency); German (A2 - Elementary Proficiency)  
**Awards:** Finalist – National Scientific Research Conference (Dynamic Vibration Project, 2023)