

# **Yerman J. Merel G.**

Panama City, Panamá | (507) 6295 - 9441 | [ymerel\\_02@outlook.com](mailto:ymerel_02@outlook.com) | Driver's License

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**

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### **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**

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### **Herrenknecht Tunnelling Services Panama Corp.**

Project Engineer

Panama 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 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 an official reference by QC and Engineering teams, **reducing documentation 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**

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- 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**

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

**Programming Skills:** Proficient in Python, MATLAB, JavaScript

**Languages:** Spanish (Native); English (B2 - Full professional proficiency); German (A2 - Elementary Proficiency)

**Awards:** Finalist – National Scientific Research Conference (Dynamic Vibration Project, 2023)