

# Yerman J. Merel G.

Panama City, Panamá | (507) 6295 - 9441 | [ymerel\\_02@outlook.com](mailto:ymerel_02@outlook.com) | Drive license

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

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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 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

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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 (Full professional proficiency); German (Elementary Proficiency)

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