Luis Ramirez

732-215-3710 | luisramirez092905@gmail.com | linkedin.com/in/luis-ramirez-njit
Plainfield, NJ 07060 | luis-ramirez-nu.vercel.app

Education

New Jersey Institute of Technology (NJIT) — Newark, NJ
Bachelor of Science in Mechanical Engineering — *GPA 3.24 — Expected May 2027*
- Psychology Minor and BS/MS Dual-Degree Program (Master of Science) — In Progress
- Active member, Educational Opportunity Program (EOP) — Jun 2023 – Present

Skills & Coursework

Technical & Professional Skills: Engineering drawing interpretation, assembly modeling, technical documentation, dimensional inspection, analytical problem solving, troubleshooting, teamwork, leadership, fluent bilingual Spanish
Software: SolidWorks & Creo Parametric (3D modeling, assemblies, drawings, BOMs), MATLAB, Microsoft Office
Relevant Coursework: Machine Design, Computer-Aided Design, Stress Analysis, Thermodynamics, Fluid Mechanics

Projects

Modular Swing Frame Assembly | *SolidWorks* — Sep 2025 – Dec 2025
- Modeled a 10+ component structural assembly using fully constrained mates and parametric features; produced fabrication drawings, exploded views, and a complete BOM.
- Performed static FEA stress and deflection analyses to evaluate load capacity and identify structural improvements.

Mechanical Roller Chain & Sprocket Drive | *Creo Parametric* — Sep 2025 – Dec 2025
- Designed a 20+ component mechanical drive assembly, generating 3D parts, exploded views, and manufacturing-ready drawings to support assembly and fabrication.
- Ran kinematic motion simulations and tolerance stack-up checks to ensure interference-free operation.

Experience

Automotive Parts Specialist — Jul 2025 – Present
AutoZone Auto Parts — *Newark, NJ*
- Perform hands-on installation, testing, and troubleshooting of automotive components including 50+ batteries, 100+ lighting components, wipers, fuses, spark plugs, fluids, and air/cabin filters using battery testers, OBD-II scanners, torque tools, and other automotive equipment, while explaining findings and corrective actions.
- Apply vehicle-specific specifications including year, make, model, engine, trim, and part numbers to determine component fitment and diagnose issues; inspect for wear, leakage, overheating, and improper installation.

Field Engineering Technician — Aug 2021 – Apr 2023
Pittenger Paving & Excavating, Inc. — *Dunellen, NJ*
- Measured and verified 20+ construction sites using tape measures and laser-level equipment to confirm layout accuracy and structural tolerances, supporting proper installation of infrastructure components and execution.
- Operated heavy machinery including skid-steers, rollers, and tampers while assisting with paving and excavation projects, maintaining safety procedures and supporting efficient material placement in demanding environments.

Leadership & Activities

EOP STEM Tutor — Jul 2024 – May 2025
New Jersey Institute of Technology (NJIT) — *Newark, NJ*
- Delivered 200+ hours of academic tutoring to first-year students in calculus, physics, and engineering, breaking down complex problem sets and exam preparation step by step.
- Facilitated 2-hour group study sessions and workshops 2–3 times per week in-person and via Discord, adapting problem-solving methods to individual student needs.

Alpha Phi Omega (APO) — Professional Service Fraternity — Sep 2025 – Present
Active Brother (NJIT) — *Newark, NJ*
- Completed 60+ hours of hands-on community service, including local animal shelter support in Montclair, community blood drives, and clothing donations.
- Collaborated with active brothers across 30+ chapter meetings to plan events, manage volunteer shifts, and support local Newark and regional outreach initiatives.