Dennis Garcia

(678)-707-0122 | dennisgarciadeleon@gmail.com | linkedin.com/in/dennis-garciadeleon | github.com/prcio

EDUCATION

University of Georgia

Athens, GA

Bachelor of Science in Electrical Engineering

Jan. 2025 - May 2027

University of North Georgia

Dahlonega, GA

Bachelor of Science in Physics

Aug. 2021 - May. 2027

EXPERIENCE

Engineering Technician

May 2022 - Present

L&S Lighting Corp.

Norcross, GA

- Designed and optimized parametric models of lighting fixtures using Autodesk Fusion360, Inventor, and AutoCAD.
- Developed an in-house configurator streamlining custom lighting fixture modeling.
- Organized and cataloged large datasets of technical drawings, CAD files, and inventory for efficiency.
- Collaborated with engineers and clients to validate and optimize custom fixture designs.

Physics Teaching/Lab Assistant

Jan. 2024 – May 2024

University of North Georgia

Oakwood, GA

- Provided one-on-one instruction to students on electromagnetism concepts and problem-solving techniques.
- Graded lab assignments with a focus on theoretical understanding, experimental accuracy, and clarity.

Engineering Student Guild Co-Founder & President

Fall 2022 – Spring 2024

University of North Georgia

Oakwood, GA

- Founded and led the guild, growing membership from 5 to 30.
- Launched transfer prep, academic coaching, and support groups for engineering students.
- Coordinated events with student orgs, including an Earth Day booth with a 3D print showcase.
- Oversaw planning, budgeting, grant writing, and sponsorships for talks, workshops, and competitions.

Projects & Research

Mathematical Research | PDEs, Academic Writing, Fluids

Summer 2024

- Co-authored "A Mixed Finite Approach of Pre-Darcy Flows" under Dr. Tinh Kieu at UNG.
- Assisted in crafting rigorous proofs and technical writing on pre-Darcy flow modeling.
- Resulted in publication in The North Carolina Journal of Mathematics and Statistics.

Rocket Trajectory Simulation & CFD Analysis

2024

- Engineered a simulation incorporating 3D transformations, aerodynamic modeling, and RK45 integration.
- Transitioned from MATLAB to Python to improve visualization and enable MANIM animations.

Image Manipulation CS Project

Summer – Fall 2024

- Collaborated with Dr. Jianjun Yang (UNG) to develop algorithms using homographic transformations.
- Leveraged libraries for color matrix parsing and automated feature detection.
- Refactored code across languages to enhance speed and efficiency.

Garcia Mechanical | Mech., Electrical, Software, Sales

Jan. 2024 – Present

- Established a machining shop with a gantry mill and restored lathe; revamped control systems using EE/ME principles.
- Delivered pro-bono signage for local municipal departments.
- Designed and machined aluminum hardware for local shops using statics expertise.

TECHNICAL SKILLS

Languages: Spanish (fluent), MATLAB, C/C++, Python, JavaScript, LATEX

Skills: Ordinary and Partial Differential Equations, electrical engineering, mechanical engineering, mathematical modeling, linear algebra, CAD/CAM, PCB-design, OpenFOAM, computational fluid analysis, circuit analysis, hands-on work.