

Arturo R Romero

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OBJECTIVE

Mechanical Engineering student with a strong manufacturing and leadership background, seeking an internship in a dynamic engineering environment.

EDUCATION

B.S. Mechanical Engineering

08/2023 - Current

University of Texas at San Antonio

- Aeronautics and Rocket Club (ARC) member since Spring 2024, contributed to our Spaceport America Cup rocket by contributing to the design and manufacturing of components for our SRAD motor and airframe, including the nozzle, GoPro mounts, and locking mechanism for the fin can section.
- Received L1 certification during Spring 2024, currently planning on obtaining my L2 certification.
- Current Treasurer for ARC as of Fall 2024, managing club finances, including membership dues, reimbursements, and general budget tracking.

A.A.S. CNC Manufacturing - GPA 3.2

08/2019 - 05/2021

St. Philip's College - San Antonio, TX

- Taught myself Fusion 360 alongside Mastercam.

RELATED EXPERIENCE

Manufacturing Lab Assistant

04/2024 - Current

UTSA Makerspace - San Antonio, TX

- Programmed CNC machines for various research labs and student projects, including for the Hypersonics Lab, Laser Spectroscopy & Chemical Propulsion Lab, and ARC.
- Created a workshop to show students and faculty how to set up and operate our CNC mill.
- Created a quote calculator in Excel to accurately price CNC work.
- Teaching assistant for the ME4801 Manufacturing Practices Lab.

CNC Swiss Lathe Operator/Shift Lead

08/2023 - Current

Cox Manufacturing Company - San Antonio, TX

- Promoted to shift lead in April 2024, and entrusted with the responsibility of locking up the facility at the end of the shift.
- Facilitate efficient production by inspecting parts, making tool offsets, and keeping bar feeders loaded.
- Perform routine production maintenance consisting of changing tools and cleaning machine components.
- Shift lead also requires assigning machines to other operators at the beginning of the shift, and being one of the primary go-to personnel for troubleshooting assistance.

CNC Programmer/Process Engineer

11/2020 - 08/2023

Empire PBF - San Antonio, TX

- Promoted to Process Engineer in November 2021, this role added management responsibilities to my CNC Programmer role, including keeping track of tooling and material inventory, coordinating with the CEO to schedule production runs, and implementing a QC process.
- Prototyped new products for the company's retail website, from design concepts and ideas all the way to organizing production runs of new products.
- Designed and implemented a modular fixturing system to standardize and facilitate the ease of palletized setups for production runs.
- Organized instructional documents to aid new CNC Operators in their proficiency gain on our CNC machines.
- Increased production by nearly 100%, by transitioning our manufacturing paradigm to a more lean method, which included reorganizing machine setup, tool library organization, creating a QC process, and upgrading our CNC equipment to a much more quick and powerful platform.

TECHNICAL SKILLS

Software Experience:

- **Fusion 360 CAD & CAM** | Proficient | Most of my professional work has been done within Fusion 360. Designing and programming parts ranging from the size of a nickel, to large 10"x15" fixture plates.
- **Mastercam** | Intermediate | Familiar with Mastercam, but unfortunately never got to use it professionally.
- **Solidworks** | Intermediate | A lot of Mastercam's CAD functions carry over, so I've been able to pick it up reasonably quickly now that I have access to it through UTSA.
- **Microsoft Excel** | Proficient | I use Excel a lot for classes and on my own time, for a variety of reasons; grade calculators, budgeting, statistical analysis, etc. My most interesting project has been a quote calculator for CNC work at UTSA's machine shop.
- **MATLAB** | Intermediate | I began learning MATLAB on my own before formally learning it in class. I may not have many projects to show, but I have a good understanding of the syntax and capabilities that MATLAB provides.

CNC Equipment Experience:

- **Haas** | Mini Mill, SL10, TL1 | UTSA & St. Philip's College
- **Hurco** | VM10i | Empire PBF
- **Brother** | S700, R650 | Empire PBF
- **Tornos** | DECO 2000, SwissNano | Cox Manufacturing Company