

AUGUSTIN CORTEZ

(714) 725-8446 | Augustin.Cortez@student.csulb.edu | <https://www.linkedin.com/in/multiaxyz>

RESEARCH INTERESTS

My research interests lie at the intersection of industrial design, product design, and advanced digital manufacturing, where human-centered consumer products are developed through technically rigorous, production-aware workflows. I focus on integrating CAD/CAM, 3D scanning, reverse engineering, and additive manufacturing into streamlined product development systems that bridge concept, prototype, and production. With formal training in industrial design and extensive hands-on experience in CNC machining and CAM programming, I approach design with a deep understanding of manufacturability, process constraints, and real-world implementation. I am particularly interested in advancing scan-to-CAD and reverse engineering workflows and exploring hybrid additive–subtractive manufacturing strategies that accelerate prototyping while enabling complex, production-ready geometries.

EDUCATION

California State University, Long Beach (CSULB) **3.874 GPA; May 2027 AGD**

Major

- Bachelor of Science in Industrial Design

Minor

- Entrepreneurship

San Bernardino Valley College (SBVC)

4.0 GPA; Highest Honors

- Associate of Science in Computer Numerical Control (CNC), Computer-Aided Design (CAD), & Computer-Aided Manufacturing (CAM)
- Associate of Science in Machinist Standard
- Associate of Arts in Liberal Arts:
 - Social & Behavioral Sciences,
 - Biological & Physical Sciences
 - Humanities & Fine Art

Technical Employment Training (TET)

- National Institute for Metalworking Skills (N.I.M.S.) Certifications:
 - CNC Mill Programming, Setup, & Operations
 - CNC Mill Operations
 - Measurement, Materials, & Safety
 - Job Planning, Benchwork, & Layout

VOLUNTEER/LEADERSHIP ACTIVITIES, AWARDS, & HONORS

Innova Design Competition & Scholarship	2026
Sunnstone Innovation Challenge	2026
CSULB's President's Honor List	Fall 2025, 2024, Fall 2023
Ronald E. McNair Postbaccalaureate Achievement Program	2025 - Present
CSULB's Dean's Honor List	Spring 2025
Apostle Enterprise Lab & Ideation Challenge	2025
1st Gen Mentorship Program	2024
Educational Opportunity Program	2023 - Present

Skills USA CTE California**2022**

- Guest Judge in the Automated Manufacturing competition

SBVC Machinists Club**2021 - 2022**

- President, Treasurer, & Founding Member
 - Responsible for organizing & operating the club & members' duties, as well as maintaining & dispersing funds for club projects & events, & quickly became one of the largest clubs on campus.

WD-40 Company Television Commercial**2021**

- CNC Machine & Conventional Machine Set-Up Operator

HBO: Our Town Documentary Participant**2019**

- CNC & Conventional Machine Operator & GD&T/Metrology Teaching Assistant

SOFTWARE**Advanced:**

Sketchbook | Vizcom AI | ChatGPT | SolidWorks | MasterCAM | NC Correct | Keyshot | Miro | MS Suite

Proficient:

Fusion 360 | AutoCAD | Inventor | Maya | Nomad | Excel | Adobe Creative Cloud Suite

MACHINE TOOLS**3D Printing:**

Bambu Labs (H2D, P2S, P1S, A1) | Creality (Ender 3 V2 Neo, V3 SE) | Eleegoo (Mars 2, 3 Pro)

C.N.C.:

Freedom Machine Tool Router with Fagor Controller | HAAS 3-5-axis Mill (TM1, VF1, VF2, TRM, UMC-750) & 2-axis Lathe (HL1) | DMG Mori Siemens Sinumerik 3-axis Mill-Tap | Mazak Mazatrol 5-axis Mill (VC-500A) & 2-axis Lathe (QTP150S) | Okuma 2-axis Lathe | Sodick 3-axis Wire EDM | Amada Press

Conventional:

Band Saw | Mill | Lathe | Drill Press | Press | Grinder (Surface & Pedestal) | Most Hand Tools

SKILLS

Adaptability | Additive & Hybrid Prototyping | Analytical Mindset | Analytical Problem-Solving | Attention to Detail | CAD/CAM | CNC Programming | Continuous Learning | Cross-Disciplinary Collaboration | Delegating | Design Innovation | Design Visualization | Design-for-Manufacturability (DFM) | Digital Manufacturing Workflows | Digital Rendering | Engineering Creativity | Engineering Design | Experimental Setup | Fixture Design & Work Holding | Fluent English | Conversational Spanish | Lab Operations | Logical & Systems Thinking | Manufacturing Process Optimization | Metrology & Precision Measurement | Multi-Axis Machining (3-5 Axis) | Prototyping | Reverse Engineering & Scan-to-CAD | Self-Motivation | Skill Development | Task Prioritization | Technical Communication | Technical Documentation (ANSI/ISO Standards) | Technology Integration | Time Management in Time-Constrained Projects | GD&T | Toolpath Optimization & Process Planning | Workflow Coordination