# NATHAN KRIKAWA

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## **OBJECTIVE**

To obtain a full-time position after graduating in May 2025 that will provide engineering work experience utilizing and developing analytical, technical, and design skills.

### **EDUCATION**

Northern Arizona University, Flagstaff, AZ Bachelor of Science in Multidisciplinary Engineering – Design Emphasis GPA: 3.73 Dean's List: Fall 2021, Fall 2022, Spring 2023, Fall 2023

#### Salpointe Catholic High School, Tucson, AZ

STEM Program. Distinguished Scholar Honor Roll. "Outstanding Junior of the Year" in Engineering.

#### **TECHNICAL SKILLS & TOOLS**

Rhinoceros 3D/Grasshopper	Ultimaker Cura	SolidWorks	Blender	Unreal Engine
CNC/Lathe/Vertical Mill	Microsoft Office	Adobe Creative Suite	MATLAB	

# **3D CONCRETE PRINTING RESEARCH & PRESENTATIONS**

Dymond, B.Z., Krikawa, N. (2024). "Optimization of a 3D Concrete Printer to Create Structural and Artistic Objects." ASCE-ASHE State Conference, Oct. 24, Phoenix, AZ.

Structural Support Systems for 3D Concrete Printing NAU Jean Schuler Grant Sep 2024-May 2025 Research and development of structural support systems for implementation while 3D printing concrete to expand the possibilities of NAU's concrete 3D printer. Developed G-code with Rhino's Grasshopper application to create optimal pathing for supported structures.

Krikawa, N., Dymond, B.Z. (2024). "Optimization of a 3D Concrete Printer to Create Structural and Artistic Objects." NAU Undergraduate Symposium, Apr. 26, Flagstaff, AZ.

Optimization of Concrete 3D Printer NAU Interns-to-Scholars Program Spring 2024 Installed and operated NAU's concrete 3D printer, optimizing the printing process and parameters. Modeled, sliced, and printed NAU's first concrete 3D prints.

# **ACADEMIC PROJECTS & COURSEWORK**

ME 476/486: 3D Printing in Metal	Spring 2024-Fall 2025			
<ul> <li>Installed a Concept Laser Mlab cusing R metal SLM printer in NAU's IDEA Lab. Going to use FEA and</li> </ul>				
topology optimization to demonstrate the capabilities of metal additive manufacturing as compared to				
subtractive manufacturing in a final complex print.				
ME 386W: Engineering Design: The Method	Spring 2024			

• Designed a delivery drone with a team, involving technical, cost, and ethical analyses. Fully modeled and animated a demonstration of the drone using Blender and Solidworks.

ART 274: New Media: 2D/3D Digital Fabrication

Spring 2024 • Designed a 3D dwarf bust in Blender, sliced it in Cura, and printed it in the Maker lab in the Cline library. ART 174: New Media Foundations Spring 2023

• Completed animations and videos through the use of Unreal Engine, Photoshop, and Premiere Pro.

## Coursework:

Introduction to Engineering Design | Programming for Engineering and Science | Computer Aided Design | Innovation and Design Thinking | Materials Science | Applied Mechanics Dynamics | Applied Mechanics Statics | Mechanics of Materials | Structural Analysis | Engineering Analysis | Machine Design 1 | Engineering Design: The Process | Engineering Design: The Method | New Media: 2D/3D Digital Fabrication

## WORK EXPERIENCE

 Undergraduate Researcher, 3D Concrete Printing, NAU Aug 2024–May 2025 Jun 2024-Aug 2024 Delivery Assistant, Legacy Beverage, Flagstaff Landscaping Laborer, Morning Dew Landscaping, Flagstaff May 2023-Aug 2023 Jul 2020-Dec 2020 Graphic Designer, Krikawa Jewelry Designs, Inc, Tucson, AZ Data Entry Clerk, Krikawa Jewelry Designs, Inc, Tucson, AZ Jan 2020–Jul 2020

May 2025

2017-2021