

Ivan Vashchenko

+1(727)-236-7217 | Ivan.Vashchenko@principia.edu | www.linkedin.com/in/ivan-vashchenko

Education

Bachelor of Science in **Computer Science and Mechanical Engineering** | Principia College | May 2027

Bachelor of Science in **Mechanical Engineering** | University of North Dakota | May 2027

GPA: 3.5

Data Structures | Algorithms | Object-Oriented Programming | Software Design | Programming Languages | Software Architecture | Finite Element Analysis | Computational Fluid Dynamics | Machine Component Design

Experience

Engineering Intern | WTI Services Pure Air | Clearwater, FL | Summer 2024

- Built **QuickScope Tool**, a full-stack estimation platform (C#, VBA, Salesforce, Excel, Google Maps API).
- Created dynamic **pipelines for data integration** and **automated metadata handling**.
- Reduced cycle time by **45%**, streamlined reporting, and improved user experience with **custom UI shortcuts**.
- Earned **promotion** to **fully remote position** after a 3-month internship.

Engineering Automation Intern | WTI Services Pure Air | Remote | September 2024 – May 2025

- Managed projects **independently** during the academic year with minimal oversight.
- Designed and deployed **automation platforms** (Python, Excel VBA) used by estimating and sales teams.
- Consolidated 3 disconnected workflows into one, cutting process time by **3x**.

Software Engineering Intern | WTI Services Pure Air | Clearwater, FL | Summer 2025

- Led development of a **3D modeling automation system** integrating **photogrammetry pipelines**, **Three.js visualization**, and **parametric modeling**.
- Enabled interactive **exploded views** and side-by-side condition comparisons, improving **design precision** and **client communication**.

Mechanical Engineering Intern | WTI Services Pure Air | Remote | September 2025 – Present

- Expanding **3D and BIM automation tools** for engineering design, focusing on integration into **CAD/Revit workflows**.
- Coordinating with engineering leadership to scale software tools into broader project delivery.

Projects

Voice Cloner AI – Hackathon Project

- Built a **database-free voice cloning tool** using **Librosa**, **YourTTS**, and a **Streamlit front-end**.

QuickScope Estimation Tool – Full-Stack Internship Project

- Built automation platform with C#, VBA, Salesforce, and Google Maps API to handle **multi-department project estimation**. Automated **metadata handling** and reporting features with a user-friendly interface.

3D AHU APP – Full-Stack Internship Project

- Designed a web-based interactive app using photogrammetry, parametric modeling, and Three.js.
- Provided engineers with **explodable, interactive reconstructions** of large HVAC units.

BDX Robotics Project – Applied Computational Modeling Club

- Currently lead a student team to design and prototype a robotics system integrating **mechanical design with embedded programming**.
- Managed system integration for automation, mobility, and **hardware-software synergy**.

Computational Chemistry Simulation – Academic Research Project

- Modeled **mechanical properties** of novel materials using computational chemistry approaches.
- Explored parametric relationships between **atomic structure** and **macroscopic mechanical strength**.

Technical Skills

Languages and Frameworks: Java | JavaScript Three.js | C# | Python | MATLAB | VBA | C | Assembly

Software: Git | Excel Automation | AutoCAD | Revit | SolidWorks | ANSYS | 3DF Zephyr | Blender

Core Competencies: Data Pipelines | API Integration | Parametric Modeling | 3D Visualization

Leadership

Founder and President | Applied Computational Modeling Club (ACMC) | 2025 – Present

House President | Principia College | 2024 – Present

President | Christian Science Organization | 2025 – Present

The National Society of Leadership and Success (NSLS) | 2025