Janna Gilleman

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EDUCATION

Smith College, Northampton MA
September 2020 - May 2024 (expected)

- BS in Engineering Science, Focus in Mechatronics Engineering, GPA 3.81/4.0
- Spring 2023 semester abroad at DIS Stockholm in Sweden (Sustainable Engineering)

SKILLS

CAD: Professionally proficient with Fusion360 and Blender | AutoDesk, Siemens Nx
PROTOTYPING: 3D printing, CNC milling, soldering, laser cutting, foam core, blacksmithing, carpentry, power tools
COMP SCI: Code {C, C++, R, Python, Java, Javascript, Assembly} | Logic Design | Web Dev | Vscode, Github
ELECTRONICS: Benchtop Equip | Arduino, Rasp Pi, Mbed | Matlab, Simulink, RStudio | ROS2, Gazebo
MISC: Microsoft Suite | Adobe Creative Suite { Photoshop, Illustrator, InDesign} | Google Suite

EXPERIENCE

Honda Sponsored Yearlong Capstone —Systems & Robotics Engineer; Q2 Project Manager
September 2023 - May 2024 (ongoing)

- Team of four designing a mobile, autonomous charging robot for electric vehicles.
- Responsible for all CAD, electronics, and programming AI scripts for the prototype.
- Led design reviews, arranged out-of-state site visit + meetings, taught team members new technical skills.
- Analysis of stakeholder needs, creation of design requirements, project scope, and concept tradeoffs.
- Acted as the main point of contact with Honda management, effectively communicated team needs.

3D Printing Farm Manager, Smith College
August 2023 - May 2024

- Design and host weekly seminars, teach students to 3D print and use CAD; coded their new website.

Werfen Polymer Injection Lab, Smith College—Software and Hardware Engineer
June 2023 - August 2023

- Created real-time AI computer vision system; precisely fills blood diagnostic sensor cards with resin liquid.
- Modeled and 3D printed the mechanical fixture and co-programmed the AI scripts using OpenCV.
- Increased card success rate from 25% to 75% compared to the original human-operated system.
- Created comprehensive technical documentation of system and code for non-technically oriented users.

Tiny Foundations, Essex CT—Concept Designer and CAD artist
June 2022 - December 2022

- Learned federal regulations for tiny houses; independently conceptualized two purchasable tiny houses.
- Designed a sustainable community based on consumer demographics (energy, waste, and water systems).
- Rendered interior models of stock houses in Blender and was hired again in the fall to continue this work.
- Displayed the rendered models on Tiny Foundations' website to attract more customers for full builds.

Sustainable Materials Lab, Smith College—Materials Researcher
June 2021 - February 2022

- Fabricated and tested tensile strength of a new, sustainable flax composite material using Instron machine.
- Designed and built a custom, sustainable vacuum infusion rig and 3D printed clamping fixtures that allowed for the standardization of the tabbing process, drastically increasing the amount of viable collectable data for the study of how flax composite tab size affected tensile strength.

Jarvis Surgical, Westfield MA—Engineering and Manufacturing Intern
2019, 2020 Summers

- Edited surgical implant blueprints (OP-sheets) for the engineering team in SIEMENS NX.
- Became familiar with datums, go no go gauges, and conducted quality assurance of precision parts.
- Trusted with the manufacturing of high precision surgical knee, ankle, and shoulder implants using multiple machines (Tormach Mill, Sand Blaster, Coordinate Measuring Machine, Laser Engraver).