Megan R. Kongable

megan.kongable@gmail.com | (319) 777-2066

www.linkedin.com/in/mkongable/ | https://github.com/mkongable | https://megankongable.vercel.app/

PROFILE

I'm a 2022 mechanical engineering graduate, currently pursuing my master's degree in plastics engineering and a graduate certificate in computer science. I've had the opportunity to use a variety of laboratory equipment following ASTM standards, create engineering drawings, and work in teams to solve problems. I have a passion for software development and have taught myself to code. I can work well both in a team and on my own initiative. In short, I am reliable, hard-working with strong attention to detail and eager to learn about new technologies.

EDUCATION

MS Plastics Engineering, Graduate Computer Science Certificate – UMass Lowell **GPA: 3.7/4.0** **May 2024**
BS Mechanical Engineering – North Dakota State University **GPA: 3.7/4.0** **May 2022**

EXPERIENCE

Lab Tech Intern at Elinor Coatings LLC. **Fall 2021- Spring 2022**

- Performed coatings tests such as Crosshatch Adhesion, Impact, Conical Mandrel, and Konïg Pendulum Hardness for characterization of coating properties in order to determine the formula with the optimal properties
- Prepared samples of new formulations based on the formulations provided from my mentor

Mechanical Engineering Intern at Crystal Group, Inc. **Summer 2021-Fall 2021**

- Constructed prototype test computers; gathered and validated thermodynamic characteristics. Gained hands-on experience with heat transfer mechanisms, as well as hardware chassis design optimization
- Used Excel/VBA to manipulate numerical test data into a more readable format and perform scientific computations
- Authored white-paper documentation assessing physical characteristics of hardware IP to provide to customers
- Informed company executives of relevant action plans and oversaw execution, driving technology upgrades

NDSU Research Assistant (Dr. Chad Ulven, ME Associate Chair) **Fall 2018-Spring 2022**

- Designed, prototyped, and implemented design modifications for a methane sensor containment unit for a petroleum company during Fall 2019 to catch methane leaks in 12 hours instead of three months
- Manufactured prototype snowboards using biodegradable fibers and resins to customer design specifications using VARTM
- Designed and prototyped a surgical cutting guide to be used in ankle replacement surgeries using Creo 4.0 to decrease surgery time by a couple of hours and lower the risk of infection.

ACADEMIC PROJECTS

Next Pick – A Group-Friendly Discord Bot for Movie Picking **Fall 2022**

- Discord bot enabling groups of users to add movies to watchlists and pick movies in a round-robin fashion
- Bot is built using Python, Discord's API, Movie Database's API, and MongoDB, ensuring persistent data storage
- Discord bot is hosted on the cloud (AWS EC2), allowing for continuous availability and secure computing
- Led AGILE/Kanban project management with GitHub Projects and Actions, documenting all tasks/issues

NASA Human Exploration Rover Challenge **Fall 2021-Spring 2022**

- Designed and prototyped a fully functional human-powered mars rover under the mentorship of a team of NASA engineers
- Successfully tested rover prototype in simulated mars-like conditions, meeting all stakeholder requirements
- Led the project management component, utilizing the AGILE methodology to ensure consistent deliverables
- Utilized ANSYS and Python for data analysis, ensuring that the rover met all design specifications within a certain tolerance
- Created detailed documentation (PowerPoint, Word) for the entire design process, showcasing team accountability and engineering achievements; presented all findings and documentations to NASA engineers and received positive feedback
- Led the outreach component by collaborating with teachers and other groups, reaching over a thousand middle schoolers

LEADERSHIP AND ACTIVITIES

Outreach Committee Member - Society of Women Engineers (SWE)

- Volunteered with the NDSU chapter of SWE to teach hundreds of 3rd-5th graders engineering concepts

SKILLS

Creo 4.0, Fusion 360, AutoDesk, MS Office, MATLAB, Java, Python, C, C++, Git, VBA, Linux, Object Oriented Design, Software Architecture, JUnit, PyTest, HTML, CSS, JavaScript, Design Patterns, AGILE, Kanban, Scripting, Azure DevOps, CI/CD, UI/UX design, Full-Stack Development, MURAL, Cloud Computing, SQL, MongoDB, REST APIs, ANSYS, Software Testing, AWS, CAD, Robotics