

# Tyler Webster

## Designer & Builder

## Professional Experience

**DLB Associates** • June 2022 – June 2023

### Electrical Design Engineer

- Enabled the successful construction of 30+ data center projects by designing and reviewing electrical system models for both new builds and tenant fit-outs
- Ensured code compliance through load, short circuit, voltage drop, derating and breaker coordination studies
- Enhanced project alignment and quality by leading site visits and overseeing construction administration processes in collaboration with external contractors and clients on 20+ projects
- Drove project success through remote collaboration with a 20+ person team and external stakeholders

**Trek Bicycle Corporation** • May 2021 - Aug 2021

### Product Development Engineering Intern

- Triggered development of new internal e-bike standards for developmental electric bicycles by engineering new testing procedures, automation software and electronics
- Optimized bicycle fit geometry by managing 30+ person user study collecting anatomical data and generating digital fit models
- Validated new product compliance with ISO standards by creating engineering test plans and tooling

**James Madison University** • Aug 2019 - May 2022

### Undergraduate Research Assistant

- Improved physical therapy outcomes by engineering a wearable device utilizing haptic feed-forwarding technology
- Successfully led a team of 3 through device development including PCB's, firmware, and feedback algorithms
- Ensured device reliability by planning and executing testing and debugging of hardware and software systems
- Improved haptic guidance performance and device usability through 10+ user studies and prototype iterations

**Eniware** • May 2017 - Jul 2017

### Product Development Intern

- Enabled product presentations by Generating prototype designs and renderings
- Co-developed prototype portable surgical equipment sterilizer which supported future product development
- Optimized device layout for sterilization processes in collaboration with 2 chemists

**Conte's Bike Shop** • June 2019 - May 2020

**Trek Bicycle Corporation** • Aug 2016 - Jun 2019

### Bicycle Service Technician

- Increased sales and customer retention by expertly selling, assembling, and servicing bikes from entry-level models to high-end custom builds
- Enhanced service quality and efficiency as the lead technician for hub-drive and mid-drive e-bike systems, specializing in advanced electrical diagnostics and repairs

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## Education

**Carnegie Mellon University**

Aug 2023 – Aug 2024

Master of Human-computer Interaction

**James Madison University**

Aug 2018 - May 2022

B.S Engineering, Math & Robotics Minors

## Projects

### MARi AI

#### Capstone Project

- Enhanced personalized learning tools by programming AI-driven interfaces, enabling user feedback collection for improved design insights
- Improved user experience by conducting interviews and tests, refining designs based on actionable feedback
- Accelerated feature development by iterating prototypes focused on attribute visualization and goal-setting, aligning designs with user needs

### Intelliride Autonomous E-Bike

#### Curriculum Project

- Developed a cohesive design system and interactive interfaces for an innovative autonomous electric bicycle, enhancing user experience and product consistency
- Improved usability of E-bike concept by designing and testing prototype physical controls, ensuring intuitive and user-friendly operation

## Skills

### Design

Accessibility, Agile methodology, Design system, Design thinking, Figma, Frontend design, Human-centered, Information architecture, Interactive prototypes, Jira, Mockups, Notion, Product development, Product management, Responsive design, UI design, User-centered design, User experience design, User flows, WCAG 2.0, Wireframes

### Development

AI, AWS, C/C++, CSS, Docker, FreeRTOS, Git, HTML, IoT, Java, Javascript, Linux, Node, Python, ReactJS

### Engineering

Autodesk, CAD, PCB design, Rapid prototyping, Revit, Solidworks, Systems thinking, Testing

### Research

Heuristic analysis, Journey maps, Qualitative user research, Quantitative A/B testing, Usability testing