

MITCHELL T. WILLIAMS

BIOMEDICAL ENGINEER

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PROFESSIONAL SUMMARY

Analytical Biomedical Engineer with a strong track record of interpreting complex data for effective problem-solving and informed decision-making. Proven ability to develop and implement strategic solutions in academic research, self-taught Python software development, and healthcare process optimization, consistently identifying and mitigating vulnerabilities. Highly organized and adept at managing diverse priorities, with effective communication skills in preparing reports and facilitating information exchange. Seeking a challenging role to leverage these analytical and strategic capabilities.

SKILLS

Python	MATLAB	R/RStudio	Data Analysis	CAD (Fusion360)
Problem Solving	Critical Thinking	Data Interpretation	Research	Statistical Analysis
Technical Writing	Organization	Integrity	Teamwork	Adaptability

EDUCATION

Bachelor's Degree

University of Utah, Salt Lake City, UT | Graduated 05/2024

Undergraduate in Biomedical Engineering with emphasis in Biomechanics.

- Streamlined compartment pharmacokinetics analysis by designing and implementing custom homework programs using Python.
- "Most Innovative Design" award for the Stroke Hand Therapy Device developed for the University of Utah Biomedical Engineering Capstone Competition.
- Conducted senior research thesis using 3D gait analysis studying kinematic variability in runners with plantar fasciopathy.
- Completed advanced coursework in Biosignals and Biosystems Analysis, developing expertise in signal processing techniques, system modeling, and the interpretation of physiological data.

PROFESSIONAL EXPERIENCE

Practice Administrator, IT Specialist, Medical Assistant

Foot & Ankle Specialists, West Jordan, UT | 2015 – Present

Responsible for clinic oversight, patient interaction, supply management, and task automation.

- Gathered and analyzed patient data and clinic workflows to make informed decisions regarding operational improvements.
- Designed and implemented a custom medical billing analysis program utilizing Python to estimate patient visit and procedure costs.
- Developed a comprehensive suite of custom Python software for weekly medical billing analysis and yearly practice performance review, enabling data-driven insights into financial trends and operational efficiency.
- Established solutions for inventory management challenges, assessed potential risks in data migration, and chose the optimal approach for EMR implementation.

- Consistently navigated the evolving landscape of healthcare regulations and technological advancements to maintain efficient and compliant practices.
- Communicated effectively with patients, colleagues, and external providers, preparing referral documentation and exchanging necessary information.
- Collaborated on biomechanics research projects, applying data analysis to gain insights into patient conditions, highlighting analytical and research abilities.

Owner/Founder

Vortex Design, Riverton, UT | 2020 – Present

Projects ranged from event collateral creation, website design, and application development.

- Gathered and analyzed client needs and market trends to inform design and development decisions for various projects.
- Established creative solutions for client branding and web presence, considering technical limitations and choosing the best design outcomes.
- Organized, planned, and prioritized multiple design and development projects with competing deadlines.
- Successfully navigated the complex and evolving demands of freelance work, managing client expectations and adapting to diverse project requirements.
- Communicated effectively with clients orally and in writing to present design concepts, provide project updates, and exchange feedback.
- Modernized the Utah Podiatric Medical Association website, significantly improving user experience and increasing site traffic, showcasing web development and design skills.
- Maintained a 100% customer satisfaction rate, demonstrating strong client relationship management and commitment to quality.

VOLUNTEER EXPERIENCE

Team RWB

Salt Lake City, UT | 2018 – Present

Supported veteran and community engagement through participation in fitness events, social activities, and outreach initiatives.

- Facilitated veteran and community engagement through fitness events, social activities, and outreach initiatives, demonstrating commitment to community service.
- Coordinated and led weekly fitness events, fostering a supportive environment and improving group morale and attendance, showcasing leadership and interpersonal skills.
- Served as a primary point of contact for multiple events, ensuring clear communication and smooth coordination between participants and organizers, highlighting organizational and communication abilities.
- Promoted Team RWB's mission through outreach efforts, increasing community awareness and participation, demonstrating strong communication and advocacy skills.

RESEARCH

Undergraduate Thesis

Lower Extremity Kinematics in Runners with Plantar Fasciopathy: A Case-Control Study

Undergraduate Capstone Project

Mechanical Stroke Hand Therapy Device