

Michael Tang

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Self-motivated and adaptive full-stack engineer with over three years of professional experience in various technological environments.

Work experience

NeuralRad LLC - Software Engineer

April 2024 - Current

Medical Application Development

- Contributed to development of NeuralRad Brain, a medical software platform for radiation oncology professionals, working across frontend (Svelte.js, Rust, WebAssembly) and backend (Node.js) systems for stereotactic radiosurgery (SRS) planning and treatment workflows utilizing SQLite. Engineered semi-automatic 3D image segmentation feature leveraging Vista3D model integration, enabling users to perform AI-assisted segmentation of DICOM volumes with intuitive point-and-box-based guidance for radiotherapy treatment planning.
- Developed an interactive beam simulation module supporting LINAC, Gamma Knife, and CyberKnife for medical physicists to visualize, edit, and analyze treatment beams in 2D and 3D views, mimicking real-world clinical applications.
- Enhanced longitudinal lesion tracking and follow-up dashboard module with multi-course visualization capabilities, enabling tumor board review of lesion volume trends and cumulative dose exposure across serial treatment courses with single and multiple comparison modes.

Database Development and Management

- Developed a Python and MongoDB-based service for advanced patient data management, featuring a custom wrapper for dynamic document updates and flexible ingestion from JSON, XML, & spreadsheets.
- Architected a task-driven automation framework utilizing MongoDB for data storage and query execution, with a Flask API for dynamic, configuration-driven data retrieval and task initiation.

PDF Generator

- Developed an XML-configurable CLI service for automated, multi-stage PDF report generation by aggregating data from various files, databases, and APIs to create styled reports with text, images, tables, graphs, embedded PDFs.

PRO Fence Naperville - Software Engineer (Consultant)

June 2023 - May 2024

Web and Mobile Application Development

- Solo developed scalable, responsive cross-platform web and mobile applications for fencing using React.js and React Native, enabling the creation of instantly downloadable, automatically generated digital PDF estimates.
- Achieved an 80% reduction in estimation creation time, 60% less customer onboarding time, and 40% increased data management efficiency.

Backend and Database Management

- Implemented a robust SQL database to securely and efficiently store customer data, sketches, pricing, and generated estimates, utilizing a RESTFUL API using ASP.NET Core in C# for database retrieval, deploying both on an AWS EC2 instance, ensuring maximum uptime and accessibility.

Education

University of Wisconsin - Madison

Bachelor of Science: Computer Science

Skills

Certifications: AWS Developer - Associate, React, C#, Python

Programming Languages: Python, Rust, JavaScript, C#, Java

Technical Skills: HTML, CSS, Node.js, React.js, React Native, ASP.NET, Express.js, Git, AWS

Databases: MongoDB, MySQL, Microsoft SQL Server

Operating Systems: Microsoft Windows, Linux

Other: Authorized to work for any US employer (US citizen by birth)