

mardigon.toler@gmail.com

github.com/mardigontoler

Software engineer seeking to tackle challenging, unique problems. Proficient in back-end development, with experience in optimization, distributed computing, signal processing, audio development, and the design and development of microservice products. Excited to solve hard problems and work on innovative software solutions while continuing to expand my knowledge domain.

Education

- **West Virginia University Institute of Technology** Beckley, WV
B.S. Computer Science, B.S. Mathematics [Fall 2015 - Spring 2019]
 - Significant Projects: Real-time AI music accompaniment, Morphological Facial Recognition, Real-time software audio synthesizer using Fourier synthesis
 - Selected Coursework: Analysis of Algorithms, Data Structures, Artificial Intelligence, Compilers, Real Analysis I&II, Abstract Algebra, Digital Image Processing
-

Work Experience

- **Parallel Computing Research Assistant** Beckley, WV
West Virginia University Institute of Technology [2017 - 2019]
 - Signal processing across multicore CPU and multi-CPU cluster systems
 - Implementation and analysis of distributed MPI FFT communication patterns
 - **Software Engineer** Huntington, WV
Core 10 [July 2019 - 2021]
 - Designing & developing banking microservices, integrating various banking services
 - Creating API products to integrate and abstract core banking platforms
 - Profiling and optimizing web services
 - Creating banking services for Constellation Digital Partners
 - **Audio Software Engineer**
Nektar Technology [March 2021-April 2025]
 - Creating audio plugins and DAW integration software
 - Developed client/server distributed system that communicates via MIDI for expanded possibilities for DAW control surface integration
 - Designing and implementing new features for legacy products as well as new projects
-

Skills

Languages : C, C++, Java, Python, JavaScript, SQL, NoSQL, Rust, and Kotlin

Libraries and Frameworks : Spring Boot, Boost, MPI, SciPy, NumPy, JackAudio, ALSA, PortAudio, FFTW, JUCE, Vue, Jackson, Freemarker, Android SDK, ESP-IDF