## **John Talbert Improvisation Piece**

The piece I will be manipulating is one of hundreds of old "AY" Arcade data files still available on the web. These data files were created to feed the AY-3-8910, a 3-voice programmable sound generator chip designed by General Instrument. The AY-3-8910 and its variants became popular chips in many arcade games during the 70s and 80s.



Since this sound chip has long been out of production, my main contribution in this performance is the creation of an ESP32 microprocessor based synthesizer that can simulate the AY chip and play back, with manipulation, any of the old AY files still out there (https://jtalbert.xyz/ESP32/).

Given the opportunity to play this old Arcade Game masterpiece in public, I thought it would behoove me to find the original composer of the piece. Happily, after much trolling the web, I was able to find the origins of this music. The piece was first heard as the title song for the 1986 Atari 8-bit Computer Video Game, WarHawk. It was composed and programmed by the great Rob Hubbard (alias John York).



Rob Hubbard was a prolific composer and programmer of Video-Game music in the 80's and 90's. Born in 1955 he remains an active composer and musician today. (https://en.wikipedia.org/wiki/Rob\_Hubbard)