Zach Hannum

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EDUCATION

North Carolina State University, May 2017
Bachelor of Science, Computer Engineering
Bachelor of Science, Electrical Engineering
GPA 3.6

EXPERIENCE

Kast Clothing August 2016 - December 2017
Co-Founder

- Co-founded Kast Clothing, using technology to provide better fitting clothes online
- Created custom patterns and tested fit with real-time physics simulations
- Entered Lulu eGames, took 1st place, winning $500 in the fan favorite Built on Cloud video
- Participated in the Andrew's Launch Accelerator Program during Summer 2017

Best in the Verse Audio May 2014 - Present
Founder

- Developed custom earphones using self-built photogrammetry scanner and SLA 3D Printer
- Created hand-crafted custom cables for audiophile headphones
- Increased yearly revenue 62% in 2017 with $0 attributed to marketing
- Retained 9.76% repeat customer rate in 2017

PROJECTS

Audibooks
Android application for listening to .mp3 audiobooks

- Built with persistence, list/grid views, and a sliding UI player
- Implemented services, adapters, custom ArrayLists, SQLite Databases, and JSON Queries

Chip8mu
Chip-8 Interpreter Emulator in C++

- Built to run programs made to run on a Chip-8 virtual machine on 8-bit computers
- Implemented 35 opcodes, graphics with SDL/OpenGL, and a command-line debugger

OoOE Superscalar Processor Simulator
North Carolina State University — Advanced Microprocessor Design (ECE 463)

- Designed a dynamic out-of-order superscalar processor in C
- Wrote and Debugged over 1000 lines of code to simulate N-width instruction life-cycle

Autonomous Remote Control Car
North Carolina State University — Intro to Embedded Systems (ECE 306)

- Coded remote control and line-following behavior in IAR Embedded Workbench (C)
- Improved base design by including 3D-printed parts to increase black line tracking efficiency
- Enhanced remote functionality by integrating an Android app with joystick capabilities

SKILLS

Languages & Software: C, C++, Java, HTML, CSS, XML, Linux, Android Studio, Eclipse, Matlab, Github, Arduino IDE, SQLite, IAR Embedded Workbench, Keil uVision5, Kicad/Eagle, Fusion360

Technical Skills: PCB soldering, breadboard circuit design, building PC's, building and operating FDM and SLA 3D Printers