Konstantin Vasilyev

Computer Engineer

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Profiles   TheDenast   denast

Skills

C, C++	Python	Linux	Git	LaTeX
Docker	x86 ASM	Nix	Networks	Electronics

Experience

Amplified Industries   April 2024 - Present
Hardware Engineering Intern   Boston, MA
https://amplified.industries/

- [**Python**, **Linux**, **Electronics**] Designed a touchscreen kiosk-style device used for pressure sensor QC
- [**C**, **Python**] Developed an implementation of oil pump sequence peak finding algorithm to be deployed on microcontroller
- [**Python**, **SQL**] Maintained an internal application that guides user through manufacturing process while logging important information in the backend

Acoustic Wells   Sep - Dec 2022
Engineering Intern   Sommerville, MA

- [**Python**] Developed a complex python script used in pre-deployment QC of main company product
- [**Electronics**] Performed everyday engineering tasks including device assembly, soldering, broken device debugging

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Education

Northeastern University   December 2023
Computer Engineering   Bachelor of Science
3.260 GPA

Electives: Computer Architecture & Systems, Software Security, Wireless communication Circuits

Other: Algorithms, Linear Systems, Networks, Electromagnetics, Discrete Structures, Calculus, Differential Equations, Linear Algebra

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Projects

Chorded Text-to-Speech Device   Dec 2023
Graduation Project

In a team of six, designed a portable text-to-speech device, allowing quick communication for speech impaired individuals using chorded multidirectional button input

C++, Linux, Git

Simple Linux Shell   Nov 2023
https://github.com/TheDenast/denast-shell

Wrote a Linux shell, capable of program execution, sequencing, dir navigation, file i/o

C, Linux

NixOS System Config   (Ongoing)
https://github.com/TheDenast/nixos-config

- Maintaining and daily-driving a declarative Linux configuration using Nix & NixOS
- Managing package dependencies, system services, and user environments through version-controlled configurations.

Nix, Linux

Self-Hosted Infrastructure   (Ongoing)

- Managing a set of debian-based servers running Docker containers with various services
- Networking done through combination of Tailscale & Nginx, moderate hardening w/ 2fa administrative access

Docker, System Administation, Networks