

Christian Kobb

Rochester Institute of Technology

BS in Computer Science, Minor in Psychology, Dec. 2022

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Languages

(Most Fluent First)

C/C++

MIPS Assembly

SQL

Python

HTML

Javascript

CSS

C#/Java

LaTeX

Prolog

PowerShell

Scheme

Libraries & Frameworks

Node.js

Angular

Bootstrap

Material Design

NumPy/pandas

WebGL

Software

Docker

Git

SSH/SCP

Proxmox/Vmware

Additional Skills

Fusion 360

FreeCAD

PCA

Woodworking

Console Modding

Home Improvement

Work Experience

Customer Service Associate, Wawa Inc. (2013-2016)

Technical Assistant, RIT ITS (2016-2017)

Responsible for developing utilities to automate existing processes in Python and PHP. Handled disposal and data-wipes of university computers.

Software Developer, Alpine Software Corp. (2019-2020)

Customized and maintained the RedNMX Fire/EMS records management software in Delphi. Utilized Agile methodologies while communicating directly with customers and collaborating with coworkers to create personalized software on a by-department basis. Handled data imports and conversions in SQL, as well as deployment and setup of servers. Mentored a group of new interns and recorded tutorials and documentation on company wiki.

Projects

Image Filter Application

Created an image manipulation software in C++ using OpenCV and Magick++ to generate custom backgrounds and icons. Included options for a neon-laser outline, laser-etched, and glass-cut effects.

Commander Recommendation System

Wrote an Angular CLI web application which uses user-entered EDH deck data to perform market-basket analysis and determine the Commanders with the greatest commonality. Pulls data from external API endpoints and stores in a local Postgres database accessible via a Node.js Express API. Uses Material Design and Bootstrap 5 to display a custom user interface.

Custom DBMS

Designed and implemented a basic ACID-compliant DBMS in Java, capable of handling variable length records and B+ Tree parsing for indices. Included a functional page buffer and attribute constraints stored inside of a persistent catalog.

Automated Garden

Developed a garden management utility in Python to use a Raspberry Pi to monitor soil moisture and ambient temperature to automatically water plants using a soaker hose. Connects to OpenWeather API to determine if saturation is unnecessary.

Home Lab

Set up a Dell R710 running Proxmox OS to manage virtual machines for home utilities, including a pfSense router, password manager, wiki, and home cloud. Collects statistics through telegraf that are pushed to self-hosted databases. Also hosts a collection of Docker containers that are managed with Portainer and Watchtower.