

# Christian Kobb

## Rochester Institute of Technology

BS in Computer Science, Dec 2022

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### Languages

(Most Fluent First)

C/C++

MIPS Assembly

SQL

Python

C#/Java

HTML

Javascript

LaTeX

Prolog

PowerShell

Scheme

PHP

### Libraries & Frameworks

Node.js

Angular

Bootstrap

NumPy/pandas

WebGL

### Software

Docker

Git

SSH/SCP

Proxmox/Vmware

MS Office

### 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

#### 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.

#### Image Filter Application

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

#### 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.

#### 3D Printers

Using Fusion 360, designed upgrades and accessories for Creality and Makerbot printers. Set up and repaired printers to work with both Marlin and Klipper connected to Raspberry Pis running OctoPrint/Fluidd for wireless printing and monitoring.