

# Maxwell Beck

1617 Chadbourne Ave, Madison, WI 53726

✉ mjbeck5@wisc.edu ☎ 815-575-5782 in maxwellbeck1 🌐 rastertail.net

## Education

### Computer Science B.S.

University of Wisconsin-Madison  
2021-Expected 2025

## Experience

### Software Engineer

Stuttgart Inc. – Crystal Lake, IL  
Summer 2022

- Maintained and implemented features on existing C and Python codebases
- Led software development for upcoming products in C++ utilizing libuv
- Resolved device tree issues for a custom board based on a Variscite i.MX8M MINI module
- Developed for a PIC32 microcontroller using MPLAB Harmony

### Engineering Services Technician

Stryker Sage – Cary, IL  
Summer 2021

- Redesigned and improved test fixture in preparation for product launch
- Tested products slated for limited launch

## Projects

### Light-Up Name Badge

- Designed a fully custom circuit board utilizing a SAMD21 MCU in KiCAD
- Programmed with custom Rust firmware including sound reactivity using CMSIS-DSP

### Caustic Dreams

Four-kilobyte procedural image

- Implemented a subset of Tizian Zeltner, Iliyan Georgiev, and Wenzel Jakob's *Specular Manifold Sampling* algorithm
- Represented scene geometry using signed distance fields

### BS-1

Breadboard Analog Synthesizer

- Researched and implemented various analog circuits, including oscillators, filters, and VCAs
- Used KiCAD to aid overall circuit design

## Skills

**Programming Languages:** Rust, Java, C, C++, JavaScript, TypeScript, Python, GLSL, Mathematica, Assembly

**Technologies:** Linux, Git, Docker, Nix, OpenGL, WebGPU

**General:** Leadership, Teamwork, Communication, Work Ethic, Public Speaking, Problem Solving