

Jacob Nickerson

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EDUCATION

University of Florida

Gainesville, FL

Bachelor of Science in Computer Science; GPA - 3.79

In Progress: August 2024 - April 2026

Bachelor of Science in Chemistry; GPA - 3.79

July 2018 - April 2022

PERSONAL PROJECTS

TRAYcer | C++, Git, GNU Make

June 2024 – Present

- Developed a C++ program to render three dimensional ppm images of spheres with ray-traced, colored lighting and different reflection properties based on sphere material
- GitHub was used for version control, ensuring a functional build was available if new features caused fatal errors
- Used Make to automate compilation, linking, and exporting pixel data to ppm files
- Currently developing application graphical user interface using Qt framework

Cetris | C++, GDB, Git, GNU Make, SFML

June 2024 – July 2024

- Developed a Tetris clone using SFML for graphical rendering, audio, and user input detection
- Used GDB to find bugs in internal game logic that were causing crashes
- Managed work in progress features and bugs with GitHub issues
- Used Make to automate linking and compilation in a Linux environment
- Released builds for both Linux and Windows systems
- Represented internal game logic board using a 2D matrix data structure
- Designed "sticky" gravity algorithm based on depth-first search flood filling that allows for recursive line clearing

Duckube | Python, BeautifulSoup, Discord.py, Python-dotenv, Git

January 2024

- Developed a Discord bot for management of a small, self-hosted Minecraft server
- Managed Python libraries using virtual environments
- Implemented Discord commands to allow server admins to run Minecraft server commands through Discord chat
- Implemented a Discord command to pull Minecraft wiki information and display in Discord chat using the requests library to pull wiki pages, BeautifulSoup to read HTML, and regex to parse
- Implemented a Discord server channel to allow automatically formatted posting of in-game coordinates using chat commands
- Used popen for opening, closing, and restarting of the Minecraft server remotely by server owner
- Authenticated user, administrator, and owner status using Discord API
- Managed sensitive API keys using python-dotenv to load as environment variables from a secure file

WORK EXPERIENCE

Medical Scribe

January 2024 – Present

Global Physician Network

Sarasota, FL

- Quickly on-boarded and became proficient at using in-house software such as SCM and T-Sheets
- Worked as a member of a healthcare team to ensure accurate documentation of any medical care services rendered
- Complied with charting standards to ensure accurate billing
- Scribe team achieved a near-zero error rate in 2024 by paying close attention to detail

General Manager

June 2022 – December 2023

Coin-O-Magic

Venice, FL

- Responsible for assigning workloads to employees for laundering service
- Tracked expenses, generated invoices, and billed commercial laundry accounts with local business partners
- Improved efficiency of billing process by using Python scripting to automate form generation
- Used customer service skills to provide support for customers with laundromat machinery, pricing concerns, and general assistance

TECHNICAL SKILLS

Languages: C++, Python, MATLAB

Developer Tools: GDB, Git, GNU Make, PyCharm, VSCode, Visual Studio, WSL

Libraries: Discord.py, SFML, BeautifulSoup

Frameworks: Qt