Patrick McCarty

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Welcome to RenderCV!

RenderCV is a LaTeX-based CV/resume version-control and maintenance app. It allows you to create a high-quality CV or resume as a PDF file from a YAML file, with **Markdown syntax support** and **complete control over the LaTeX code**.

The boilerplate content was inspired by Gayle McDowell.

Quick Guide

- Each section title is arbitrary and each section contains a list of entries.
- There are 7 unique entry types: *BulletEntry*, *TextEntry*, *EducationEntry*, *ExperienceEntry*, *NormalEntry*, *PublicationEntry*, and *OneLineEntry*.
- Select a section title, pick an entry type, and start writing your section!
- Here, you can find a comprehensive user guide for RenderCV.

Education

University of Wisconsin-Madison, BS in Computer Science   Sept 2021 – Dec 2023

- **GPA:** 4.0 (a link to somewhere)
- **Related Coursework:** Operating Systems, Computer Networks, Algorithms and Data Structures, Database Management Systems

Madison Area Technical College, AA in Economics and Pre-Business   Sept 2019 – May 2021

- **GPA:** 3.8 (a link to somewhere)

Experience

Backend Software Engineer, Fetch – Madison, WI   Jan 2024 – Current

- Reduced time to render user buddy lists by 75% by implementing a prediction algorithm
- Integrated iChat with Spotlight Search by creating a tool to extract metadata from saved chat transcripts and provide metadata to a system-wide search database
- Redesigned chat file format and implemented backward compatibility for search

Backend Software Engineering Intern, Fetch – Madison, WI   May 2023 – Aug 2023

- Designed a UI for the VS open file switcher (Ctrl-Tab) and extended it to tool windows
- Created a service to provide gradient across VS and VS add-ins, optimizing its performance via caching
- Built an app to compute the similarity of all methods in a codebase, reducing the time from $\mathcal{O}(n^2)$ to $\mathcal{O}(n \log n)$
- Created a test case generation tool that creates random XML docs from XML Schema
- Automated the extraction and processing of large datasets from legacy systems using SQL and Perl scripts

Publications

3D Finite Element Analysis of No-Insulation Coils   Jan 2004

Frodo Baggins, *Patrick McCarty*, Samwise Gamgee

10.1109/TASC.2023.3340648

Projects

Multi-User Drawing Tool   github.com/name/repo

- Developed an electronic classroom where multiple users can simultaneously view and draw on a "chalkboard"

with each person's edits synchronized

- Tools Used: C++, MFC

Synchronized Desktop Calendar   github.com/name/repo

- Developed a desktop calendar with globally shared and synchronized calendars, allowing users to schedule meetings with other users
- Tools Used: C#, .NET, SQL, XML

Custom Operating System   2002

- Built a UNIX-style OS with a scheduler, file system, text editor, and calculator
- Tools Used: C

Skills

Programming Languages: Go, Python, Java, C, SQL

Technologies: Git, Bash, AWS, Docker, RESTful APIs