

NICK SWISHER

SOFTWARE ENGINEER

GitHub: [swish0621](#)

- View my portfolio -

<https://swish0621.github.io/>



PHONE
972-999-6235



EMAIL
swisher.n.r@gmail.com



LOCATION
Colorado Springs, Colorado



LINKED IN
[Nicholas-Swisher0621](#)

TECHNICAL SKILLS

LANGUAGES: C++, Python, SQL

FRAMEWORKS & LIBRARIES:

FastAPI, scikit-learn, pandas, NumPy,

Catch2

DATABASES: SQLite, MongoDB

SOFTWARE ENGINEERING: OOP

Design, Design Patterns, Algorithms,

REST API Development, Unit Testing

(TDD), CI/CD (GitHub Actions)

DATA & ML: NLP Techniques, Data

Pipelines

TOOLS: Git/GitHub, VS Code,

Command Line

PROFILE

Computer Science student at the University of Colorado Boulder (3.8 GPA), graduating December 2025, with a prior BS in Kinesiology from the University of North Texas.

I have experience developing backend software in C++, building data-processing and machine-learning pipelines in Python, and deploying API-driven services. My work includes designing modular system architectures, implementing performance-focused data structures, and creating applied ML solutions. I'm seeking an internship or full-time role where I can contribute by building reliable, scalable software systems.

REFERENCES

Available on request.

EDUCATION

2024 - 2025

APPLIED COMPUTER SCIENCE

University of Colorado, Boulder

BS Post-Baccalaureate

GPA: 3.8 | Expected Graduation: Dec., 2025

Data structures | Algorithms | Database

Design & Analysis | Software Development

Methods & Tools | Object-Oriented

Programming | Data Mining | Linear Algebra

2016 - 2020

BS KINESIOLOGY

University of North Texas, Denton, Texas

Minor Psychology

GPA: 3.622 | Graduated: May, 2020

Honors: Cum Laude, Dean's List,

President's List

PROJECT EXPERIENCE

Content Recommendation System – Solo Developer

Python • scikit-learn • SQLite • FastAPI

- Developed a content recommendation engine using TF-IDF vectorization and cosine similarity to generate real-time, similarity-based suggestions.
- Designed a reusable preprocessing and feature-extraction pipeline backed by a SQLite datastore for efficient metadata handling.
- Deployed the service on Render using FastAPI, exposing live recommendation endpoints suitable for integration into user-facing applications.

Event Management Platform – Solo Developer

C++ • OOP

- Built a modular backend platform simulating an event-ticketing system with user accounts, event catalogs, and transaction flows.
- Applied OOP design patterns (Factory, Singleton) to support extensible event types and maintainable system growth.
- Implemented a centralized manager that loads structured event and user data from CSV files to coordinate system-wide operations.

Data Structure Templating & Performance Benchmarking – Solo Developer

C++ • Catch2 • Algorithms

- Engineered templated data structures (HashMap, Binary Search Tree, Linear List) for performance-critical backend and systems applications.
- Built a Catch2 testing suite to validate correctness and edge-case handling across operations.
- Benchmarked runtime behavior across datasets to evaluate algorithmic tradeoffs and guide optimization decisions.

WORK EXPERIENCE

FRONT END MANAGER Safeway

2024-2025

ACCOUNT MANAGEMENT Spectrum

2023-2024

POWER SPORTS TECHNICIAN Rocky Mountain Cycle Plaza

2021-2023