NICK SWISHER

COMPUTER SCIENCE ENGINEER

View my portfolio:
https://swish0621.github.io/

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LOCATION
Colorado Springs, Colorado

LINKED IN
Nicholas-Swisher0621

TECHNICAL SKILLS

LANGUAGES: C++, Python, SQL, C, Scala, Assembly

DATABASES: MongoDB, SQLite, PyMongo

FRAMEWORKS & LIBRARIES: pandas, praw, dotenv, FastAPI, scikit-learn, requests

DEVELOPMENT PRACTICES: OOP, TDD, CI/CD, Unit Testing

TOOLS: Git, GitHub, VS Code, command line, JupyterLab, MySQL Workbench

DATA & VISUALIZATION: Tableau

WEB: HTML, CSS

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

PROFILE

Motivated Computer Science student (3.8 GPA), graduating December 2025 with a post-baccalaureate BS at University of Colorado Boulder, with a prior degree in Kinesiology and Psychology from the University of North Texas. Experienced in Python, SQL, C/C++, and Git/GitHub, with hands-on project work in data pipelines, algorithm development, and database design. Passionate about building real-world software solutions; seeking internship or full-time opportunities to contribute to impactful technology projects.

PROJECT EXPERIENCE

Event Management System – Solo Developer

C++, OOP, STL, File I/O

- Designed and implemented a modular backend system to manage Users, Events, and Transactions.
- Applied object-oriented design patterns to build extensible event types and user interactions.
- Integrated file-based persistence and a singleton event manager to coordinate data operations.

Movie Recommendation System – Solo Developer

Python, scikit-learn, SQLite, FastAPI

- Developed a content-based movie recommendation engine that suggests similar films using TF-IDF and cosine similarity.
- Built a preprocessing pipeline with scikit-learn and a SQLite backend for structured movie data.
- Integrated a FastAPI service to deliver recommendations through REST API endpoints.

Data Structure Templating and Algorithm Testing – Solo Developer

C++, Templates, Catch2, Algorithm Analysis

- Implemented templated data structures (HashMap, Binary Search Tree, Linear List) supporting primitive and custom data types.
- Designed unit tests with Catch2 to validate correctness and benchmark search, insert, and delete operations.
- Measured runtime complexity to compare algorithmic performance across datasets.

REFERENCES

Available on request.

WORK EXPERIENCE

FRONT END MANAGER Safeway	2024-2025
ACCOUNT MANAGEMENT Spectrum	2023-2024
POWER SPORTS TECHNICIAN Rocky Mountain Cycle Plaza	2021-2023