

kathleen _monje;

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//
software
engineer

// skills

PROGRAMMING LANGUAGES

C/C++, Java, Swift, C#, LaTeX,
Haskell, HTML/CSS, Bash

TECHNOLOGIES & FRAMEWORKS

OpenGL, gnuplot, Unix/Linux,
.NET, .NET Core, LINQ,
Entity Framework 6, NUnit

DEVELOPMENT TOOLS

Visual Studio, VS Code, Xcode,
Git, GitHub, GitLab, Jira, Slack

CREATIVE & OTHER SOFTWARE

Final Cut Pro, Premiere Pro,
Reason, Notion, G Suite

// education

Syracuse University

Computer Science, BS
Minor in Computational Physics
2016 – 2020 // GPA 3.5

// coursework

Computer Graphics
Ray Tracing & Stochastic Optics
Multithreading & Parallel Prmg
Computational Physics I, II
Artificial Intelligence
iOS Development
Computer & Network Security
Data Structures & Algorithms
Software Implementation & Design
Systems Programming
Computer Architecture
Operating Systems Design
Automata & Computability

// interests

01. UI + UX design
02. animation + VFX
03. film production
04. creative writing

// experience

Software Engineering Intern @ M&T Bank

Jun – Aug 2019 // Buffalo, NY

- > Created RESTful APIs for identifying issues & bugs in the account opening system, following software principles in the Onion Architecture
- > Implemented search functionalities by writing LINQuery calls in Entity Framework 6 to existing SQL database
- > Provided 100% unit test coverage using NUnit for all query functions written
- > Refined user experience to better address use cases via iterative design thinking in collaboration with software developers, business analysts, product owners & UX designers

Teaching Assistant @ Syracuse University

Jan 2018 – May 2020 // Syracuse, NY

- > **Intro to Computer Graphics:** provided weekly office hours to demonstrate & clarify computer graphics concepts in OpenGL, helped resolve issues in 30 students' C++ code & evaluated projects on delivered ability to apply techniques learned
- > **Intro to Computer Science:** coached, debugged & graded 50 students' weekly labs in Haskell, consistently instilling efficient & intuitive functional programming skills in learners
- > **Computational Physics I:** taught 30 students to write efficient algorithms in C aimed at generating data to simulate physical systems & model their scientific visualizations
- > **General Physics I:** supervised a class of 50 students in tackling in-class exercises & held review sessions on classical mechanics
- > Attended weekly meetings with lead professor & graduate teaching assistants to refine learning material for students

Webmaster @ Society of Asian Scientists & Engineers

Apr 2018 – May 2019 // SU Chapter

- > Designed & maintained the chapter's official website
- > Revamped the campus organization's digital brand & social media presence
- > Documented weekly executive board meeting agendas & body meetings

// projects

Qube [OpenGL, C++]

Apr – May 2019

- > Built *Qube*, a 2x2 Rubik's cube simulator with visual & interactive features
- > Explored OpenGL approaches in shading/lighting, texture mapping/blending, 3D transformations, timed/idle animations, and particle systems

Nightroom [OpenGL, C++]

Mar – Apr 2019

- > Constructed *Nightroom*, a first-person POV, mission-based exploration game
- > Implemented OpenGL routines for collision detection, camera panning with eye & perspective view controls, and mouse input handling using render hit processing

Cribb [Swift, Google Maps API, Firebase, UML]

Mar – May 2019

- > Developed *Cribb*, an iOS app for reviewing off-campus housing created by & for college students, following Agile methodologies in a team of 5
- > Enhanced and engineered the system's user interfaces and UX design
- > Managed the project's Requirements Specification & Design Document