

Education

B.Sc. Computer Science, Southern New Hampshire University , Manchester, NH **Expected Graduation: Fall 2025**

- Concentration: Software Engineering
- Relevant Coursework: Mobile App Development, UI/UX Design, Databases, Java Programming

Technologies and Languages

Languages:

- Java, Python, C++, XML, SQL, HTML

Frameworks & Libraries:

- JUnit, OpenGL, PyMongo, Android SDK

Tools & Platforms

- Android Studio, Git/Github, Maven, MySQL, MongoDB, Visual Studio, Apporto, Pycharm

Concepts & Skills

- Object-Oriented Programming (OOP), CRUD Operations, Data Structures & Algorithms, Secure Coding Practices, UI/UX Wireframing, Agile Development, Unit Testing, 3D Modeling & Texturing

Projects

Below are some of my most recent academic projects that demonstrate my strengths in backend development, database systems, software security, UI/UX design, and 3D graphics rendering.

Dementia Safety App - UI/UX Design | CS319: UI/UX Design and Development

Designed a mobile app prototype to assist caregivers of individuals with dementia, focusing on safety, simplicity, and emergency communication. Created a paper prototype and digital wireframes using Lucidchart, informed by user interviews and accessibility principles.

- Conducted interviews with caregivers to gather user stories and pain points
- Designed wireframes featuring GPS-based wandering alerts and medication reminder
- Prioritized large fonts, minimal menus, and calming color palettes for accessibility
- Iterated the design based on usability feedback from target users.

MongoDB CRUD Dashboard - Python | CS340: Client/Server Development

Developed a full-stack data dashboard for the Austin Animal Center using MongoDB and PyMongo. Implemented full CRUD functionality through a custom Python module and integrated an interactive data table and geolocation chart. Secured database access with user authentication.

- Imported and indexed data from CSV
- Designed queries to retrieve and update real-time shelter outcomes
- Emphasized clarity, usability, and security in UI components

3D Scene Rendering in OpenGL - C++ | CS330: Computer Graphics and Visualization

Created a fully textured and animated 3D scene using OpenGL. The project featured complex object rendering, lighting effects, camera movement, and material design.

- Built custom objects using pyramid meshes
- Applied transformations, rotation, and scaling
- Integrated textures, shading, and physics-based animation

Unit Testing Suite for Contact Service - Java | CS320: Software Test and Automation

Designed and tested modular Java services for managing contacts, tasks, and appointments. Ensured data integrity and performance using JUnit.

- Created object-oriented services with unique ID validation
- Developed unit tests to verify create, update, delete functions
- Achieved high test coverage and modular service logic

Secure Web Application Refactoring - Java | CS305: Software Security

Partnered with Artemis Financial to identify and resolve critical security vulnerabilities in a legacy web application. Conducted manual and automated vulnerability assessments to ensure the protection of client financial data.

- Implemented encryption algorithms and HTTPS protocols to safeguard communication
- Added checksum validation to verify data integrity and prevent tampering
- Utilized Maven’s Dependency-Check and Java Keytool for secure dependency management
- Performed static code analysis and unit testing to confirm functionality post-refactor
- Strengthened application security posture while preserving system usability and performance

Driving School System Design - UML/Java | CS255: System Analysis and Design

Designed a system for DriverPass to manage student progress, lesson scheduling, and administration tasks using UML and user-centered principles.

- Created detailed UML class and use case diagrams
- Translated requirements into system architecture
- Focused on maintainability and user accessibility

Work Experience

Springs School	East Hampton	Sep 2023–Present
Substitute Teacher	NY	
• Teach various grade levels and subjects in short and long-term assignments. • Maintain classroom management and student engagement. • Adapt quickly to unfamiliar routines, lesson plans, and school policies. • Communicate effectively with full-time teachers, support staff, and administration. • Served as a 1:1 aide in the 2024 summer school program for students with disabilities, providing individualized support and instructional assistance. • Provide individualized attention and classroom support to students with varying academic needs. • Prepare and implement lessons when needed, ensuring instructional continuity. • Use classroom technology (Google Classroom, Smart Boards, etc) to support instruction. • Manage transitions, lunch, recess, and dismissal independently when needed.		
Sierra	Bedford	2020–2023
Retail Associate	NH	
• Operated checkout and handled transactions and returns • Restocked and organized sales floor merchandise • Processed inventory efficiently in backroom operations • Promoted store credit cards and met sign-up goals • Assisted customers and maintained a positive shopping experience.		

Academic Achievements

President's List (2x), Southern New Hampshire University

Honor Roll (10x), Southern New Hampshire University

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Interests

- UI/UX Design
- Mobile App Development
- Database Systems
- Human-Centered Technology
- Accessible Design