Thomas Deverin

www.thomasdeverin.com **|** (540) 392-9890 **|** tdeverin17@gmail.com

Research Interest

I am interested in the research of computer science education for children. My research includes creating software as well as unplugged activities to enhance the CS education experience for elementary and middle school students.

Education

Virginia Tech   **Blacksburg, Virginia**
Master of Science, Computer Science   Expected *May 2025*
- GPA 4.0 / 4.0 [Current]

Related Courses:
- Mobile Development
- Ethics and Professionalism in CS
- Advanced Topics: CS and Digital Education
- Mobile Application Development
- Usability Engineering
- User Interface Software

Virginia Tech   **Blacksburg, Virginia**
Future Professoriate Certificate   Expected *May 2025*

Related Courses:
- Preparing the Future Professoriate
- Pedagogical Practices in Contemporary Contexts
- Advanced Topics in Computer Science Pedagogy

Virginia Tech   **Blacksburg, Virginia**
Bachelor of Science, Computer Science   *May 2023*
- GPA 4.0 / 4.0
- First in Class
- Summa Cum Laude

Related Courses:
- Undergraduate Research
- Introduction to Human-Computer Interaction
- Introduction to GUI Programming and Graphics
- Data Structures and Algorithms
- Introduction to Computer Organization I and II

- Comparative Languages
- Computer Systems
- Technical Writing
- Formal Languages

New River Community College   **Dublin, Virginia**
Associate of Arts and Sciences, Engineering   *May 2021*
   - GPA 4.0 / 4.0
   - Summa Cum Laude

Related Courses:
- Problem Solving in Computer Science
- Linear Algebra
- Multivariable Calculus
- Public Speaking

Research

Graduate Research   **Blacksburg, Virginia**
Virginia Tech   *August 2023 – Present*
CodeKids
Advisor: Dr. Sally Hamouda

Responsibilities
- Frontend development of CodeKids website.
- Identifying computer science misconceptions commonly formed by elementary students and creating books to prevent these misconceptions from forming.
- Implementation of CodeKids books in elementary classroom settings.

Undergraduate Research   **Blacksburg, Virginia**
Virginia Tech   *August 2022 – December 2022*

VR-in-AR Approaches to Develop Drone-based Augmented Reality for Civil Infrastructure Inspection
Advisor: Dr. Joseph Gabbard

Responsibilities
- Development of the VR user interface in the Unity game engine.
- Features include mini maps, drone pathing, drone switching, scenario building, etc.
- Build a highly usable user interface that is simple, quick to learn, and effective.
- Develop a vision system so that entities can "see" each other and perform actions accordingly

Undergraduate Research   **Blacksburg, Virginia**
Virginia Tech   *May 2022 – July 2022*

Augmented Reality Environments for Systems Engineering
Advisor: Dr. Joseph Gabbard

Responsibilities
- Development of networking scripts to receive UDP packets from an outside source and interpret them to perform various actions on entities within the Unity application.
- Web Listener – C# script that receives UDP packets from a server at 60hz and deserialize the packets.
- Data Retriever – C# script to receive UDP packets from the Web Listener and interpret them to perform actions on entities within the Unity application.
- Initializer – C# script that creates new entities in the application. Initialization data is received from the Web Listener when an "initialize" key is seen.
- Data Sender – Python script that serializes data into UDP packets and sends the packets to the Web Listener.

Teaching Experience

Graduate Teaching Assistant   **Blacksburg, Virginia**
Virginia Tech   *August 2023 – Present*

Responsibilities:
- Helping students with their programming problems and their course work.
- Grading student assignments and examinations.

Courses:
- Comparative Languages (CS 3304) – Fall 2023, Spring 2024, Fall 2024
- Mobile Software Development (CS 3714) – Summer 2024

Undergraduate Teaching Assistant   **Blacksburg, Virginia**
Virginia Tech   *January 2023 – May 2023*

Responsibilities:
- Helping students with their programming problems and their course work.

Courses:
- Introduction of Computer Organization (CS 2505) – Spring 2023

Work Experience

Global Process Technology Intern   **Blacksburg, Virginia**
Tenneco   *January 2021 – May 2023*
Supervisor: Ryan Throckmorton

Responsibilities:
- Development of programs using the LabVIEW development environment.
- Analysis of quality data from bearing auto lines.
- Building and inspection of new auto line machines that get sent around the world.

Long-Term Projects:
- Testing the feasibility of using the Microsoft HoloLens to train new operators.
- Development of a data analysis program that reads data from auto lines and gives detailed information about the quality of bearings being produced for a particular line.
- Development of a verification system to confirm that the vision system recognizes and scraps bearings with various defects.
- Development of a learning system to adjust lighting thresholds dynamically when inspecting parts for defects.

Skills

Research:
- Contextual Analysis and Inquiry
- Conceptual Design
- Prototyping
- Prototype Evaluation

Programming
- Unity – Advanced
- Object-Oriented Programming – Advanced
- React – Advanced
- React-Native – Intermediate
- Prisma – Intermediate
- MongoDB - Intermediate
- Kotlin – Beginner

Scholarships
- Clay Copeland Memorial SWVA Scholarship
- Virginia Commonwealth Award
- Virginia Tech Scholarship
- ACCE Scholarship

Academic Awards
- Summa Cum Laude, Virginia Tech
- Dean's List (3 Semesters), Virginia Tech
- Summa Cum Laude, New River Community College
- President's List (2 Semesters), New River Community College
- Dean's List (1 Semester), New River Community College