

RYAN LOFTUS

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EDUCATION

Master of Science in Software Engineering, Villanova University, Villanova, PA *Expected May 2027*

Bachelor of Science in Computer Science, Villanova University, Villanova, PA | GPA: 3.8 *May 2026*

- Minor: Cybersecurity | Magna Cum Laude | Study Abroad: Belfast, Northern Ireland
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SKILLS

- **Languages & Web:** Python, JavaScript, PHP, SQL, HTML/CSS, Java, C++, C#
 - **Frameworks & Technologies:** React, Electron, Vite, React Native, SQLite, Astro, Unity, REST APIs, Ollama, Firebase
 - **Tools & Practices:** Git, GitHub, Agile, Requirements Engineering, UI/UX Design, Automated Testing
 - **AI & Data:** LLM Integration, Local LLMs (Qwen, Gemma), XML/JSON Parsing, Data Transformation, LoRA, Gradio
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TECHNICAL EXPERIENCE

Falvey Library Technology Graduate Assistant, Villanova University, Villanova, PA *Aug 2026 – Present*

- Develop and refactor PHP components for Villanova's VuFind library discovery system, supporting cataloging workflows, database operations, and automated testing.
- Collaborate with Falvey Library developers and international VuFind contributors through Git-based development workflows and code review.
- Diagnose and resolve application, data, and workflow issues affecting library systems and technology used by library staff.

Ellis Center Data and Operations Graduate Assistant, Villanova University, Villanova, PA *Jun 2026 – Aug 2026*

- Built the Villanova EZCert application to assist with the review and verification of rising seniors' graduation eligibility.
- Projected to reduce initial graduation review from approximately two weeks to several days by automating student processing, categorization, and filtering for roughly 1,000 student audits annually.
- Developed a desktop application with React, Electron, and SQLite that parses XML student audits, stores structured graduation records, supports manual review and editing, and exports filtered reports.

STEM Specialist, ESF Camps, Chester Springs, PA *Jun 2018 – Aug 2024*

- Designed and taught programming activities in Scratch, Code.org, Tynker, and introductory Python for campers ages 8-14.
 - Guided campers through programming, debugging, and game development while adapting technical concepts to different skill levels.
 - Recipient of ESF Camps' Ichiban Award for excellence in leadership, teamwork, and camper experience.
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PROJECTS

Patent Assistant LLM | Qwen, LoRA, Gradio: Collaborated with a team to fine-tune a 6B-parameter Qwen model using LoRA to generate patent drafts from pre-written abstracts and developed a Gradio interface to compare the base and fine-tuned models.

SLICES | React, JavaScript, Firebase: Developed a web-based puzzle game featuring Firebase Authentication, global leaderboards, and a once-daily challenge.

Loft Sites | Astro, CSS: Developed a portfolio of responsive demonstration websites and designed a tiered pricing model for a freelance web development service.

ADDITIONAL EXPERIENCE

- *Access Services Technician*, Falvey Memorial Library, Villanova, PA *Oct 2023 – May 2026*
- *Contributor (Contract)*, Inside the Iggles, Remote *Apr 2021 – Jul 2023*
- *IT Help Desk Technician*, Millersville University, Millersville, PA *Nov 2021 – May 2023*