Ella Kokinda, Ph.D.

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Technical writer and Computer Scientist with 7+ years of experience in creating user-focused documentation, educational content, and technical documentation for diverse audiences in cybersecurity and undergraduate STEM courses. Expertise in translating complex technical concepts into accessible content for stakeholders ranging from students to federal sponsors. Strong background in curriculum development, compliance documentation, and instructional design with a Computer Science PhD and hands-on industry experience.

SKILLS & COMPETENCIES

Technical Writing

- User-focused documentation and Standard Operating Procedures (SOPs)
- Technical training materials and instructional design
- Compliance documentation (NIST, DoD frameworks)
- Research publications and academic writing
- Stakeholder communication and executive reporting

Technical Tools & Platforms

- LaTeX, Git version control, Overleaf
- Canvas LMS, Google Workspace, Microsoft Office Suite, Miro
- Adobe Creative Suite (Illustrator, Express), Canva
- HTML, CSS, Python programming, agile development methodologies
- Taiga, Confluence project management tools

Domain Expertise

- Educational Technology (EdTech) and curriculum development
- Cybersecurity frameworks and compliance
- Software development and game design education
- Agile project management and iterative development processes
- Mixed-methods research and data analysis

EXPERIENCE

Clemson University, Human Factors in Software Engineering Lab

Jan. 2021 – May 2025

Educating Autistic Software Engineers (EdASE) Instructional Designer and Curriculum Developer

Educating Autistic Software Engineers (EdASE) is a National Science Foundation (NSF)-funded initiative that delivers a three-week, fully remote summer program designed for neurodivergent high school students. The camp introduces participants to software development, game design principles, and technical communication. In previous cohorts, students have developed their own games using platforms such as Godot and Microsoft MakeCode.

- Analyzed existing research on software development learning outcomes to develop core learning objectives for camp curriculum.
- Created and maintained software development curriculum, student materials, and instructor documentation for use over multiple years of camp, including instructor's knowledge base of tools, processes
- Developed and implemented research architecture to measure student software development proficiency at baseline at the start of camp, and post-camp growth in support of research goals.
- Facilitated post-camp student feedback surveys, self-assessments, lessons learned meetings, and leadership retrospectives to improve curriculum, tools, processes, and instructional methodology for future camps.
- Communicated written and verbal reports on camp progression, student outcomes, and research to university leadership and federal funding sponsors.
- Co-authored published EdASE research: <u>CSEDU 2024</u>, <u>ICSE-SEET 2024</u>, <u>ICSE-SEET 2022</u>

Undergraduate Course Designer + Instructor + Researcher

Developed a computer science course where upper-level undergraduate students live stream their software and game development projects, allowing them to work on self-directed personal projects while building online communities of practice. The course served as both an informal learning opportunity within formal education and a research vehicle to study how live streaming impacts students' self-efficacy, accountability, and professional development skills in software development.

- Designed course objectives, curriculum, and research questions for undergraduate computer science students
- Scheduled and hosted regular classes for students to expand general and technical knowledge based on course objectives.
- Documented course outcomes, including unforeseen events throughout the course, as a part of research artifacts. Applied lessons learned from analysis to drive continuous course improvement.
- Published research from this course and its methods: <u>ASEE 2025</u>

Graduate Research Assistant

- Published research in two journals and four peer-reviewed conferences, and poster presentations focusing on educational technology and learning methodologies
- Created and formatted research deliverables using Google Docs and LaTeX, ensuring compliance with institutional/conference templates and style guides for consistency across collaborative projects.
- Conducted mixed-methods research using qualitative interviews, surveys, and observational data to understand learner experiences and outcomes
- Analyzed learning data to identify patterns and insights for improving educational interventions

Naval Information Warfare Center (NIWC) Atlantic

May 2015 – Dec. 2020

Scientist

North Charleston, SC

- Authored and maintained detailed onboarding Standard Operating Procedures (SOPs) to assist in integrating new hires into the DC2HS mission, including Cybersecurity Service Provider (CCSP) activities.
- Established technical training materials for cybersecurity compliance based on NIST SP 800-53 security controls, DOD Risk Management Framework (RMF) process, and the DON specific implementation, including the program's Incident Response Procedures.
- Onboarded and oversaw over twenty (20) DC2HS customer stakeholders and systems through RMF
 Assessment and Authorization (A&A) workflows to ensure security, technical, and administrative compliance
 post-migration into an AWS cloud-based environment.
- Managed cybersecurity assessment activities on ad-hoc, multidisciplinary project teams consisting of internal DC2HS personnel and stakeholders for the systems being migrated into AWS.
- Attended Contingency Plan tabletop exercises as a part of the RMF annual security review process.

Clemson University Jan. 2015 – May 2017

Information Technology Desk Technician

Clemson, SC

- Documented user issues and created support ticket documentation for IT systems troubleshooting
- Resolved customer trouble reports with personal & university owned information technology systems and documented user issues for support tickets
- Communicated complex technical concepts to users with varying levels of technical knowledge

EDUCATION

Clemson University Clemson, SC

PhD, Computer Science

May 2025

- Dissertation topic: Informal Learning in STEM education focusing on motivation and education within live streaming software and game developer communities
- Graduate Certificate in Engineering and Science Education focusing on curriculum development and learning methodologies

MS, Computer Science May 2022

BS, Computer Science May 2017

CERTIFICATIONS

CITI Investigators Conducting Social and Behavioral Science Research (SBR) Certification