

Jennifer C. Cremer

Department of Computer & Information
Science & Engineering
Herbert Wertheim College of Engineering

University of Florida

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Education

Ph.D in Computer Science (Computer Graphics & Visualization)

University of Florida, 2025 (Expected)

M.S. in Computer Sciences

University of Florida, 2021

B.S. in Digital Arts and Sciences

University of Florida, 2018

Research Experience

Graduate Student Researcher

2018- Present

Jörg Peters, SurfLab, University Of Florida

- Developing a VR platform for analysis, reconstruction, and exportation of CT and MRI into interactive models
- Managing correspondence with our collaborators with the Colorectal Oncology Team at UF Health: Shands
- Lab coordinator

Undergraduate Researcher

2017 - 2018

Jörg Peters, SurfLab, University Of Florida

- Assisting in the development of a surgical simulation software including UI development and implementing user feedback
- Managing correspondence with our collaborators at the Veterinary School
- Developing a VR platform for 3D reconstruction of CT data

Teaching Experience

Dept. of Computer & Information Science & Engineering, Univ. of FI

Graduate Teaching Assistant

2018 - 2022

UF at Kyoto University Summer Abroad Program

2022

Courses: CIS4930 - Special Topics in CISE - Performant Programming in Python & Cross-Cultural Engineering

- Assisted the professor in course organization and student affairs
- Helped organize and execute excursion trips as examples of sensitive engineering in life
- Mentored students through office hours and one-on-one communication.
- Developed original assignment specifications and materials
- Provided grades according to university standards

Graduate Teaching Assistant (General)

2018 – 2021

- Assisted the professor with course management and individual student affairs
- Proctored tests and provided grades according to university standards
- Mentored students through office hours and one-on-one communication
- Developed project specifications, lab assignments, and grading protocols
- Taught lab sections covering review and supplemental materials

Developed original assignment specifications and materials

CAP5705 - Fundamentals of Computer Graphics**	2022
CIS6930 – Special Topics: Information Visualization	2022
COP3504C – Adv. Programming Fundamentals**	2021
CIS4930 - Special Topics: Performant Programming in Python**	2020, 2022
COP4600 - Operating Systems**	2018 - 2020
COP3503 - Programming Fundamentals 2 in C++	2019, 2020
CAP4053 - Artificial Intelligence for Computer Games**	2019

Instructor on record

2020 - 2021

CIS4930: Special Topics in CISE – Performant Programming in Python Summer 2021

- Adoption and performance of predecessor's lecture materials
- Instruct and oversee students on industry soft-skills including team dynamics and communication of ideas
- Saw to the needs of both traditional student and UF Online student sections
- Coached course assistants in observing students for troubling behavior and mediation technique

CIS4930: Special Topics in CISE - Design Patterns in OOP Sp' 2020, 2021

- Original development of course content and material on key paradigms in programming and efficient design choices
- Instructed students on industry soft-skills including team dynamics and communication of ideas to an interdisciplinary audience
- Executed a smooth transition to online platform at the start of the covid-19 pandemic

Undergraduate Teaching Assistant

Dept. of Computer & Information Science & Engineering, Univ. of FL

Course: COP4600 - Operating Systems 2018

Course: COP3530 - Data Structures and Algorithms 2017

Mentoring & Advising

Student Research Mentor

2018 - Present

SurfLab, Dept. of Computer & Information Science & Engineering, Univ. of FL

- Advisor to eight undergraduate Senior Projects
- Project Lead and Mentor to seven undergraduates during a one to four year span
- Provided guidance, oversight, and trained mentees on how to read research papers, organize a project, present a research idea to the group, and develop mature scientific practices

Advisor to Prospective Ph.D Students

2020 - 2021

Dept. of Computer & Information Science & Engineering, Univ. of FL

- Providing research and planning guidance for 3 undergraduate students for how to prepare application packages for Ph.D. programs
- Connected students with teaching opportunities in the UF department
- Instructed students in graduate responsibilities including how to pick a research lab and getting involved in research, and knowing when graduate school is the right path

Operating Systems Team Lead

2018 - 2020

Dept. of Computer & Information Science & Engineering, Univ. of FL

- Assisted the professor with course management and student affairs
- Trained the staff on the responsibilities and general approach to being both a TA and mentor
- Provided detailed instruction on how to conduct discussion sections
- Led team of peer mentors and teaching assistants in organization of discussion content
- Taught the staff innovative strategies to better educate others, including utilizing the Socratic Method in Office Hours
- Coached graduate students to serve as mentors to the students under their care from a holistic standpoint in terms of both student major as well as each student's unique perspective.

Summer Science Mentor

2017, 2019

SSTP, University Of Florida, Gainesville , FL

- Introduced high school students to the environment and experience of working in a university research lab.
- Outlined project milestones and developed a comprehensive timeline for tasks.
- Provided guidance in conducting background research and how to frame accomplishments into an organized presentation.

Service to Profession

Academy Software Foundation: Diversity & Inclusion Working Group 2020-Present

Member, University Partner Contact for Univ. of FL

Summer Learning Program Team Lead and organization team

Pilot launch of outreach webinar series initiative

- University panelist for "VFX Careers: Technical Director"
- Lead presenter for "University Content: Building from Source with Cmake"

Understudy to Japan Study Abroad Organization

2019-2022

Teaching Assistant consultant for pilot launch of CISE/Cross-Cultural Engineering Abroad program in Kyoto/Osaka, Japan

Panelist, Prospective Ph.D Student Welcome Visit

2020-2021

Participated as a representative in Ph.D Student, answering questions by applicants about the department and student life and facilitating cross-cohort bonding activities.

Student Consultant to Digital Arts and Science Program

2018-2019

Organization and course direction suggestions to present DAS Director (Joshua Fox)

Conferences

**Women in Scientific Computing on
Complex Physical and Biological Systems** 2022

Gainesville, FL

"Patient-Specific MRI VR Model Construction and Simulation", Poster

ACS Surgeons and Engineers 2021

Virtual

"From Scans & Model Collections to Interactive Surgical Simulation", Poster

Academic Surgical Congress 2020

Orlando, FL

"VascularVR", SurfLab Exhibitor

Grants & Awards

Research in Robotic Technology Grant - Research Foundation of the ASCRS 2021

CISE Department Nominee, Outstanding Graduate Teaching Assistant Award 2020

University of Florida

Student Participation Award, MICCAI 2020

Subsidized registration and attendance fees for MICCAI 2020

NSF GRFP Honorable Mention, Computer Graphics and Visualization 2020

Graduate Teaching Assistantship for Doctoral Program 2018

Dept. of CISE, University of Florida

Technical Skills

Programming Languages:

C++, Java, C#, Python, OpenGL, WebGL, JavaScript

Design/Modeling/Simulation Tools:

Unity 3D, Blender, Maya, Rhino3D, Adobe Creative Suite, SteamVR

Intercommunication:

Mediation, Conflict Resolution, Project Organization/Management