

# Jennifer C. Cremer

Department of Computer & Information  
Science & Engineering  
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University of Florida

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## Education

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

University of Florida, 2024 (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 at the Veterinary School and 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 - 2021

Course: COP3504C – Adv. Programming Fundamentals

Fall 2021

- Developed project specifications, lab assignments, and grading protocols
- Taught lab sections covering review and supplemental materials
- Mentored students through office hours and one-on-one communication
- Proctored tests and provided grades according to university standards

*Course: COP4600 - Operating Systems*

2018 - 2020

- Assisted the professor with course management and student affairs
- Led team of peer mentors and teaching assistants in organization of discussion content
- Facilitated team grading of assignments according to unified rubrics
- Developed assignments and exam questions
- Led large-scale discussion sections covering review, and supplemental, materials
- Mentored students through office hours and one-on-one communication

*Courses: CIS4930 - Special Topics in CISE - Performant Programming in Python    2020  
& CAP4053 - Artificial Intelligence for Computer Games                      2019*

- Assisted the professor in course organization and student affairs
- Mentored students through office hours and one-on-one communication.
- Developed original assignment specifications and materials
- Provided grades according to university standards

*Course: COP3503 - Programming Fundamentals 2 in C++*

2019 - 2020

- Taught lab sections covering review and supplemental materials
- Mentored students through office hours and one-on-one communication
- Proctored tests and provided grades according to university standards

**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

### Advisor to Prospective Ph.D Students

2020 - Present

*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*

- Served in a training capacity to new students (undergraduate and graduate students alike) on the course staff
- 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
- 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.

### Student Researcher Mentor

2018 - Present

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

- Advisor to five 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

### 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.

Pilot launch of outreach webinar series initiative

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

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.	
Understudy to Japan Study Abroad Organization	2019-Present
Teaching Assistant consultant for pilot launch of CISE/Cross-Cultural Engineering Abroad program in Kyoto/Osaka, Japan	
Student Consultant to Digital Arts and Science Program	2018-2019
Organization and course direction suggestions to present DAS Director (Joshua Fox)	

## Conferences

<b>ACS Surgeons and Engineers</b>	<b>2021</b>
<i>Virtual</i>	
"From Scans & Model Collections to Interactive Surgical Simulation", Poster	
<b>Academic Surgical Congress</b>	<b>2020</b>
<i>Orlando, FL</i>	
"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
<i>University of Florida</i>	
Student Participation Award, MICCAI	2020
<i>Subsidized registration and attendance fees for MICCAI 2020</i>	
NSF GRFP Honorable Mention, Computer Graphics and Visualization	2020
Graduate Teaching Assistantship for Doctoral Program	2018
<i>Dept. of CISE, University of Florida</i>	

## Technical Skills

### Programming Languages:

Matlab, C++, Java, C#, Python, JavaScript

### Design/Modeling/Simulation Tools:

Unity, Blender, Maya, AutoCAD, Rhino3D, SoFA, SteamVR

### Intercommunication:

Mediation, Conflict Resolution, Project Organization