

Thomas Lord Department of Computer Science

2024 HIGHLIGHTS

## **A Revolutionary Space**

This year, USC celebrated the ribbon-cutting ceremony for the new Dr. Allen and Charlotte Ginsburg Human-Centered Computation Hall. The eco-friendly, 116,000-square-foot facility is a key component of USC President Carol Folt's Frontiers of Computing, a groundbreaking \$1 billion dollar initiative to fast-track ethical developments in advanced computing. Additionally, the department joined the newly established School of Advanced Computing, part of the Viterbi School of Engineering.

#### **PIONEERING SOLUTIONS TO GLOBAL CHALLENGES**



#### **MENTAL HEALTH EPIDEMIC**

With a \$1.2 million National Science Foundation (NSF) grant, researchers are designing a personalized socially assistive robot to enhance Cognitive Behavioral Therapy (CBT) engagement for college students with anxiety.



#### **EXTREME WEATHER**

Researchers are creating a novel optimization system to manage wildfire risks, aiming to balance the protection of endangered species, buildings, and important water sources.



#### **BATTLING CANCER**

USC researchers created an AI model that predicts ovarian cancer tumor responses to chemotherapy. offering personalized treatment recommendations and insights into resistant tumors.



#### LIVING BETTER

A new study is examining if ocean surfing therapy can reduce chronic pain by studying its impact on the brain, using virtual reality (VR) to replicate the experience and increase accessibility.



## FIGHTING MALNUTRITION

25

USC researchers are leveraging AI to predict acute malnutrition among children in Kenya by analyzing past data and satellite imagery, aiming to enable earlier interventions and improve health outcomes.

#### **BY THE NUMBERS**

1,660 undergraduate students







faculty hired since 2022





12,000,000 POUNDS OF CONCRETE

145,000 BRICKS

#### **NEW FACULTY**

### SAI PRANEETH KARIMIREDDY

Assistant Professor Data challenges in machine learning

**MENGYUAN LI** Assistant Professor System security, cloud security, confidential computing

**CARTER SLOCUM** Lecturer Virtual reality, augmented reality

MÁTÉ SZABÓ Senior Lecturer History and philosophy of logic and computing

#### **RECOGNIZING FACULTY ACHIEVEMENTS**

**HEATHER CULBERTSON** Mass Robotics, Rising Star Award

**RUISHAN LIU** Google Gemma Academic Program Award

**MAJA MATARIĆ** ACM Athena Lecturer Award

**STEFANOS NIKOLAIDIS** Okawa Foundation for Information and Telecommunications Research Grant

**GAURAV SUKHATME** American Association for the Advancement of Science Fellow

WEIHANG WANG N2Women Rising Stars in Networking and Communications

**YUE WANG** Charles Lee Powell Foundation, Powell Faculty Research Award

**YUE ZHAO** Google Cloud Research Innovator



"This remarkable building serves as a nexus for computer science research and collaboration across USC.<sup>3</sup>

-PROFESSOR NENAD MEDVIDOVIĆ CHAIR OF THE THOMAS LORD DEPARTMENT OF COMPUTER SCIENCE

#### WORLD-CLASS RESEARCH **SINCE 1976**

48 years

since the department was founded in 1976

## \$41M+\* in research expenditures

# 60

new faculty hires planned for the School of Advanced Computing

\$121M R&D expenditure for computer and information science at USC

# \$50M

naming gift donated by the Lord Foundation of California

\*Includes expenditures from the Information Sciences Institute and the Institute for Creative Technologies