

Computer Engineering Department
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Carlos Rojas

Professional Employment

- 2019-present **Assistant Professor**, San José State University, San José, CA.
Tenure-track position in the Computer Engineering Department.
- 2018-2019 **Postdoctoral Scholar**, UC Davis Genome Center, Davis, CA.
Researcher in 3D genomic data with deep learning networks.
- Summer 2014 **Software Engineering Intern**, MobiTV, Emeryville, CA.
Worked on internal code generation tools and built screen saver for Android TV device.
- Summer 2012 **Visual Computing Intern**, Intel, Folsom, CA.
Optimized Unreal Game Engine frame rates.
- 2011-2018 **Graduate Researcher**, UC Davis Computer Science, Davis, CA.
Graduate research in computational geometry

Education

- 2011-2018 **Ph.D. computer science**, University of California, Davis, Davis, CA, USA.
Advisor: Prof. Nina Amenta.
Thesis: *Parameterization of Triangle Surface Meshes for Shape Analysis*.
- 2007-2011 **B.S. computer science**, University of California, Davis, Davis, CA, USA.
Minor in Mathematics

Awards and Honors

- 2020 San José State University College of Engineering Small Group Projects (\$50,000)
- 2020 San José State University College of Engineering travel grant (\$450)
- 2016-2017 Professors For The Future Fellowship from UC Davis (\$3,000)
- 2014-2016 Travel Grant from UC Davis Computer Science Graduate Group (\$3,000)
- 2012-2013 GEM Fellowship from The National GEM Consortium (\$16,000 and one year of tuition)

Publications

Conference Papers

- 2020 Nina Amenta and Carlos Rojas. Dihedral Rigidity and Deformation. Computational Geometry.
- 2018 Nina Amenta, and Carlos Rojas. Dihedral Rigidity and Deformation. Canadian Conference on Computational Geometry.
[Link] [Paper]

Posters

- 2018 Carlos Rojas, Minh N. Tran, Linh Huynh, and Fereydoun Hormozdiari. Machine learning approaches for comparative genome structure analysis. American Society of Human Genetics.
[Poster]
- 2014 Carlos Rojas, Alex Tsui, Stewart He, Lance Simons, Shengren Li, and Nina Amenta. Edge length interpolation. ACM Symposium on Solid and Physical Modeling.
[Poster] [Paper]
- 2011 Carlos Rojas, Scott Refugio. Automated Angiogenesis Quantification. UC Davis College of Engineering Senior Design Showcase.
[Poster]

Service

University Service

2020-2021 College of engineering graduate curriculum committee

Chair of department graduate curriculum committee Department website committee

2019-2020 Department undergraduate curriculum committee

Reviewer

2021 IEEE International Conference on Big Data Service and Applications (BDS)

Sub-Reviewer

2019 ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB)

Intelligent Systems for Molecular Biology/European Conference on Computational Biology (ISMB/ECCB).

Research in Computational Molecular Biology (RECOMB)

Panels

2021 Faculty Conversation - Gradescope

2020 Workshop: How to use a stylus and a mobile device for whiteboard collaboration in Zoom

Active learning for your remote teaching

Academic Advising

M.S. Thesis Supervised

Spring Title: A Deep Learning Method for Comparing Hi-C Data

2021 People: Sughosh Krishnamurth

M.S. Projects Supervised

Spring Title: Qualitative Assessment with Machine Learning

2021 People: Mitash Gaurh, Vasanthi Amoolya Koduri, Shalabh Neema, Mohammed Farhaan Patel

Title:Hi-C Super-Resolution

Fall 2020 People: Khang Doan, Raymond Hong, Koushik Kumar Kamala, Mrunali Sanjay Khandat

Title:Uncertainty Visualization

People: Wei He, Tian Lan, Amir Hossein Radman

Grant Support

Founder: San José State University Charles W. Davidson College of Engineering

2021-2022 Title: DNA Assembly with Bioinformatics and Natural Language Processing Algorithms

People: Carlos Rojas, Jorjeta Jetcheva, William Andreopoulos

Award: \$50,000

Teaching

Instructor, San José State University

CMPE 255: Data Mining

Spring 2020, Fall 2020

CMPE 131: Software Engineering I

Fall 2019, Spring 2020, Spring 2021

Teaching Assistant, UC Davis

ECS 162: Web Programming

Spring 2017

ECS 140A: Programming Languages

Summer 2016

ECS 50: Computer Organization and Machine-Dependent Programming

Spring 2015, Summer 2016

ECS 40: Software Development and Object-Oriented Programming

Spring 2014, Fall 2015

ECS 20: Discrete Mathematics for Computer Science

Winter 2016