

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

- 2020 Nina Amenta and **Carlos Rojas**. Dihedral Rigidity and Deformation. *Computational Geometry*, paper, 2020.
- 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, 2018.
- 2018 Nina Amenta, and **Carlos Rojas**. Dihedral Rigidity and Deformation. *Canadian Conference on Computational Geometry*, paper, 2018.
- 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, 2014.
- 2011 **Carlos Rojas**, Scott Refugio. Automated Angiogenesis Quantification. *UC Davis College of Engineering Senior Design Showcase*, poster, 2011.

Service

University Service

- 2020 College of engineering graduate curriculum committee
Chair of Department graduate curriculum committee

- Department website committee
- 2019 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), 2019.
- Intelligent Systems for Molecular Biology/European Conference on Computational Biology (ISMB/ECCB), 2019.
- Research in Computational Molecular Biology (RECOMB), 2019.
- Panels
- 2021 Faculty Conversation - Gradescope
- 2020 Workshop: How to use a stylus and a mobile device for whiteboard collaboration in Zoom
- Workshop: Active learning for your remote teaching

Academic Advising

M.S. Thesis Supervised

- Spring 2021 Title: A Deep Learning Method for Comparing Hi-C Data
- People: Sughosh Krishnamurthy

M.S. Projects Supervised

- Spring 2021 Title: Qualitative Assessment with Machine Learning
- People: Mitash Gaurh, Vasanthi Amoolya Koduri, Shalabh Neema, Mohammed Farhaan Patel
- Fall 2020 Title: Hi-C Super-Resolution
- People: Khang Doan, Raymond Hong, Koushik Kumar Kamala, Mrunali Sanjay Khandat
- Fall 2020 Title: Uncertainty Visualization
- People: Wei He, Tian Lan, Amir Hossein Radman

Grant Support

- 2021-2022 Funder: San José State University Charles W. Davidson College of Engineering
- Title: DNA Assembly with Bioinformatics and Natural Language Processing Algorithms
- People: Carlos Rojas, Jorjeta Jetcheva, William Andreopoulos
- Awarded: \$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
- ECS 30: Programming and Problem Solving
Winter 2015