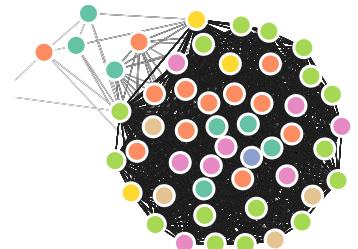


# ALEX RAJEWSKI

Experienced bioinformatics data scientist with experience in oncology, drug design, single-cell sequencing, spatial transcriptomics, epigenetics, genome assembly, and phylogenetics. Also skilled in pipeline development, including Nextflow, Docker, Singularity, and Git. I am an excellent science communicator to both [public](#) and [professional](#) audiences.



## EDUCATION

2020	<b>PhD Bioinformatics &amp; Plant Biology</b> University of California, Riverside <ul style="list-style-type: none"><li>• Genome assembly/annotation, RNA-seq, phylogenetics, high-throughput CRISPR screening</li><li>• NGS library prep, PCR, tissue culture, in situ hybridization, microscopy</li></ul>
2015	<b>MS Horticulture</b> University of Georgia <ul style="list-style-type: none"><li>• Population genetics, Microsatellites/SSR, phylogenetics</li></ul>
2010	<b>BS Biochemistry, Cell, and Molecular Biology</b> Drake University

## WORK EXPERIENCE

current   2023	<b>Senior Computational Biologist</b> <a href="#">Tempus AI</a>
2023   2022	<b>Bioinformatics Scientist</b> <a href="#">Tempus AI</a> (fmr. SEngine Precision Medicine) <ul style="list-style-type: none"><li>• Development of high-throughput drug screening analysis pipelines in R</li><li>• Consultation on experimental design and statistical analysis</li></ul>
2022   2021	<b>Research Bioinformatician II</b> <a href="#">Cedars-Sinai Genomics Core</a> <ul style="list-style-type: none"><li>• Advanced analysis of single-cell RNA-seq, spatial transcriptomics, WES/WGS, CUT&amp;Tag, ATAC-seq</li><li>• Pipeline development with Nextflow, Docker, and Git</li></ul>
2020   2015	<b>Research Assistant</b> University of California, Riverside <ul style="list-style-type: none"><li>• Created and characterized CRISPR mutants for a trait validation project</li><li>• Sequenced, assembled, and functionally annotated the genome of <i>Datura stramonium</i></li></ul>

## CONTACT

- ✉ [AlexCRajewski@gmail.com](mailto:AlexCRajewski@gmail.com)
- /github.com/rajewski
- @rajewski.github.io
- in [in/alexrajewski](#)

## LANGUAGE SKILLS

- R
- German
- Docker/Singularity
- Shell
- Nextflow
- Python
- SQL
- 汉语

2015   2013	<b>Research Assistant</b> University of Georgia • NGS and microsatellite analysis of population genetic structure
2012   2011	<b>Congress-Bundestag Fellow &amp; Research Intern</b> <a href="#">Universität Rostock</a> • Vaccine production in transgenic plants • Developed plant transformation methods in lupine, pea, tobacco, and potato
2011   2010	<b>Research Assistant</b> Pioneer Hi-Bred (Corteva) • Developed SQL database to integrate phenotypic and genotypic measurements
Aug 2009   May 2009	<b>NSF Research Intern</b> North Carolina State University • Validated viral protein production in novel hosts

## PEER-REVIEWED PUBLICATIONS

2024	<b><a href="#">SOX9 switch links regeneration to fibrosis at the single-cell level in mammalian kidneys</a></b> Science S. Aggarwal; Z. Wang; D. Rincon Fernandez Pacheco; A. Rinaldi; <b>A. Rajewski</b> ; J. Callemeyn; E. Van Loon; B. Lamarthée; A. Ester Covarrubias; Jean Hou et al.
2023	<b><a href="#">Stacking the odds: Multiple sites for HSV-1 latency</a></b> Science Advances. Shaohui Wang, Xueying Song, <b>Alex Rajewski</b> , Chintda Santiskulvong, and Homayon Ghiasi
2022	<b><a href="#">Multispecies Transcriptomes Reveal Core Fruit Development Genes</a></b> Frontiers in Plant Science <b>Alex Rajewski</b> , Dinusha Maheepala, Jessica Le, Amy Litt
2022	<b><a href="#">Cell therapy attenuates endothelial dysfunction in hypertensive rats with heart failure and preserved ejection fraction</a></b> Heart and Circulatory Physiology G. de Couto, T. Mesquita, X. Wu, <b>A. Rajewski</b> , F. Huang, A. Akhmerov, N. Na, D. Wu, Y. Wang, L. Li, M. Tran, P. Kilfoil, E. Cingolani, E. Marbán
2021	<b><a href="#">Datura Genome Reveals Duplications of Psychoactive Alkaloid Biosynthetic Genes and High Mutation Rate Following Tissue Culture</a></b> BMC Genomics <b>Alex Rajewski</b> , Derreck Carter-House, Jason Stajich, and Amy Litt
2019	<b><a href="#">in Vitro Plant Regeneration and <i>Agrobacterium tumefaciens</i>-mediated Transformation of <i>Datura stramonium</i></a></b> Applications in Plant Science <b>Alex Rajewski</b> , Kevan Elkins, Ashley Henry, Joyce Van Eck, and Amy Litt

2019	<b>Evolution and Diversification of <i>FRUITFULL</i> Genes in Solanaceae</b> Frontiers in Plant Science Dinusha Maheepala, Chris Emerling, <b>Alex Rajewski</b> , Jenna Macon, Maya Stahl, Natalia Pabón-Mora, and Amy Litt
2018	<b>Classification and phylogenetic analyses of the <i>Arabidopsis</i> and tomato G-type lectin receptor kinases</b> BMC Genomics Marcella A. Teixeira, <b>Alex Rajewski</b> , Jiangman He, Olenka G. Castaneda, Amy Litt, and Isgouhi Kaloshian

## TEACHING EXPERIENCE

2019	<b>Tools for building highly customized figures</b> Botany Conference <ul style="list-style-type: none"><li>• Co-taught a workshop using base R graphics for data presentation</li></ul>	 Tucson, AZ
2019	<b>Making Your Work Environment LGBTQ+ Welcoming and Affirming</b> Plant Biology Conference <ul style="list-style-type: none"><li>• Hosted a panel discussion on LGBTQ+ representation and workplace issues</li><li>• Recruited speakers from both academia and industry</li></ul>	 San Jose, CA
2018	<b>California's Cornucopia (TA)</b> UCR Dept of Botany and Plant Science <ul style="list-style-type: none"><li>• Led discussion sections for 120 students</li><li>• Introductory, non-major course</li></ul>	 Riverside, CA
2016	<b>Foundations of Plant Biology (TA)</b> UCR Dept of Botany and Plant Science <ul style="list-style-type: none"><li>• Designed and led lab sections for 80 students</li><li>• Broad, upper-division course</li></ul>	 Riverside, CA

## OUTREACH

current   2010	<b>Extension Master Gardener</b> California, Iowa, Kansas, Georgia
current   2018	<b>Big Brother</b> Big Brothers Big Sisters of the Inland Empire
2020   2016	<b>Community OUTreach Educator</b> University of California, Riverside
2020   2017	<b>Mentor</b> Planting Science

2018   2017	<b>President</b> UCR Queer (LGBT) Graduate Student Association
2018   2017	<b>Academic Affairs Officer</b> University of California, Riverside
2018   2017	<b>Secretary, Botany Grad Student Assoc.</b> University of California, Riverside
2018   2016	<b>Mentor, Grad Student Mentorship Program</b> University of California, Riverside
2017   2016	<b>Member Services Taskforce</b> American Society for Horticultural Science (ASHS) Conference
2016   2014	<b>Chair, Grad Student Working Group</b> American Society for Horticultural Science (ASHS) Conference
2015   2013	<b>Vice President, Horticulture Grad Student Assoc.</b> University of Georgia
2010   2009	<b>President, Beta Beta Beta</b> Drake University

## ORAL AND POSTER PRESENTATIONS

2020	<b>Multispecies fruit transcriptomes highlight divergence across developmental and evolutionary time</b> Oral presentation	Botany Conference
2019	<b>Hybrid Origin of Bamboo Population Inferred from Haplotype-Phased Amplicon sequencing</b> Southern California Evolutionary Genetics and Genomics Meeting	Oral presentation
2019	<b>Identification of Conserved Regulatory Modules in Dry and Fleshy Fruit Development</b> Oral presentation	Botany Conference
2017	<b>There and Back Again: When Evolution Reverses</b> Three-Minute Thesis Competition	American Society for Horticultural Science (ASHS) Conference
	• 3rd Place Award	
2017	<b>Optimizing Tissue Culture Methods in Diverse Nightshade Species</b> Poster Presentation	ASHS Conference
2017	<b>Developmental Transcriptome of <i>Nicotiana obtusifolia</i></b> Poster Presentation	UC Riverside CEPCEB Post-Doc Symposium

2016	<b>Optimizing Tissue Culture Methods in Diverse Solanaceae Species</b> Poster Presentation	 Solanaceae Conference
2016	<b>Evidence of Interspecific Hybridization or Incomplete Lineage Sorting in River Cane (<i>Arundinaria gigantea</i>)</b> Oral presentation	 ASHS Conference
2016	<b>A Family Divided: Evolution of Dry and Fleshy Fruit in Nightshades</b> Three-Minute Thesis Competition • 1st Place Award	 ASHS Conference
2016	<b>Role of <i>FRUITFULL</i> in the Evolution of Fleshy Fruits: Optimizing Solanaceae Tissue Culture to Generate Stable Transgenic Knockout Lines</b> Oral presentation	 Botany Conference
2015	<b><i>In Vitro</i> Comparison of Benzyladenine and <i>meta</i>-Topolin on Shoot Proliferation of River Cane, a Candidate for Wetlands Restoration</b> Poster Presentation	 ASHS Conference
2015	<b>Raising Cane: Sustainable Bamboo Restoration in the American Southeast</b> Three-Minute Thesis Competition • 1st Place Award at ASHS • Top 10 at UGA	 ASHS Conference University of Georgia
2015	<b>Clonal Structure, Genetic Diversity, and <i>in vitro</i> Propagation of River Cane (<i>Arundinaria gigantea</i>), a candidate for use in wetlands reclamation</b> Oral presentation	 Southern Region ASHS Conference
2014	<b>Disinfestation and <i>in vitro</i> Growth and Development of <i>Arundinaria</i></b> Oral presentation • 1st Place Award (Masters Category)	 UGA Interdisciplinary Graduate Plant and Soil Symposium
2014	<b>Sterilization and <i>in vitro</i> Growth and Development of <i>Arundinaria</i></b> Poster Presentation	 Southern Region of North America International Plant Propagators Society Conference
2009	<b>Comparison of the Symptoms Caused by Three Geminiviruses in a Common Host</b> Poster Presentation	 NCSU Summer Undergraduate Research Symposium Drake University Conference on Undergraduate Research in the Sciences