

## Julian Roberts

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Denver, CO 80205  
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(424) 333-8117

## Education

*University of Colorado Denver, Denver, CO*  
Master of Science in Computer Science

August 2020 - May 2022

*Pitzer College, Claremont, CA*  
Bachelors of Arts in Biophysics

August 2013 - May 2017

*Texas Military Institute, San Antonio, TX*  
High School Diploma

August 2009 - May 2013

## Work Experience

*University of California Los Angeles (UCLA), Los Angeles, CA*

August 2017 - July 2020

David Geffen School of Medicine Information Technology (DGIT) Software Development Group

### Programming and Database Development

- Design and develop web-based and database application software, including gathering requirements, design and implementation using Agile software development practices (Scrum) and leveraging automation tools.
- Design and develop mobile app (iOs and Android) projects including integrating various complex software components in the context of mobile health.
- Write unit and regression test units as well as detailed documentation for software developed.

### Research

- Research and make recommendations to internal development teams and customers by reviewing advances in the fields of:
  - Mobile app development
  - Mobile health technologies
  - Databases and database administration
  - Web-based client- and server-side applications
  - Amazon Web Services

### Collaborate, Supervise and Train

- Manage and work on multiple projects simultaneously.
- Provide assistance to student volunteers and junior staff programmers.
- Conduct small group training and code review sessions regarding programming techniques, standards and procedures.
- Provide design recommendations to ensure applications are built according to the customers' needs while following modern best practices for web application development.
- Provide a high-level of customer service to end users when support is needed. Support provided includes training on specific features of applications and troubleshooting when issues arise.

## Research Experience

Mayo Clinic, Phoenix, AZ

May 2016 - September 2016

American Association of Physicists in Medicine (AAPM), Undergraduate Fellow

- Worked as a Research Assistant under the supervision of Dr. Wei Liu, a medical physicist within the Radiation Oncology department at the Mayo Clinic.
- Shadowed the clinical service of practicing medical physicists.
- Conducted an independent research project developing a multiple objective optimization, intensity modulated proton therapy (IMPT) treatment planning algorithm in C++ from C code for Feasible Sequential Quadratic Programming (CFSQP) and compared the results to traditional nonlinear programming methods.
- Presented research as a senior thesis at W. M. Keck Science Center in Claremont, CA in April 2017.

Cornell University, Ithaca, NY

May 2015 - August 2015

Research Experience for Undergraduates (REU) Program, Awardee

- Worked as a Research Assistant under the supervision of Eric Richards, principal investigator of the epigenetics lab at Boyce Thompson Institute of Plant Technology (BTI).
- Conducted an independent research project studying the genomic instability of duplicated disease resistant genes in *Arabidopsis thaliana*.
- Research entailed advanced molecular biology lab work such as extracting, cleaning and sequencing DNA samples, along with running principal component reactions, quantitative principle component reactions and various blotting techniques.
- Presented research to fellow REU recipients, BTI faculty and staff at the end of the program in August 2015.

Rancho Santa Ana Botanic Garden, Claremont, CA

May 2014 - August 2014

W.M. Keck Science Department Grant, Awardee

- Worked as a Research Assistant under the supervision of Keck Science professor, Dr. Diana Jolles, studying the genetic diversity of the flower *Californian Claytonia lanceolata*
- Conducted an independent research project estimating gene flow based on floral shape.
- Research consisted of fieldwork photographing specimens, advanced molecular biology lab work, and statistical analyses done in R (programming language) specifically elliptical fourier and principal components analyses.
- Presented research at a conference for the California Botanical Society in April 2015.

## References

- Available upon request.