

Julian Roberts

2020 Lawrence St.
Denver, CO 80205
julian.roberts.one@gmail.com
(424) 333-8117

Education

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

August 2020 - *PRESENT*

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

- Dr. Roberts Dennis (Director, DGIT Software Development Group)
 - rdennis@mednet.ucla.edu | (310) 206-2462
- Dr. Adam Landsberg (Academic Advisor and Physics Professor W.M. Keck Science Center)
 - alandsberg@kecksci.claremont.edu | (909) 607-8016