

# Grace H. Gravley

3064 22<sup>nd</sup> Street, San Francisco, CA 94110  
(415) 419-6761 | [ghgravley@ucdavis.edu](mailto:ghgravley@ucdavis.edu)

---

## Education

*University of California, Davis*  
**B.S. Plant Sciences**

Davis, CA  
June 2019

Individual concentration with a focus in biotechnology and entomology. GPA: 3.40

*University of California, Santa Cruz*  
Plant Sciences, GPA: 3.458

Santa Cruz, CA  
September 2013- June 2017

## Research Experience

---

### **Undergraduate Student Researcher**

January 2019-June 2019

*University of California, Davis*

Research Advisor: Dr. Diane M. Beckles

Beckles Lab Research Focus: Production and analysis of transgenic crops including members of the Solanaceae family and cereal grains.

Projects: The Physio-Chemical Analysis of Starch Granules from Genetically Modified Wheat (*Triticum aestivum L.*)

Worked directly with Dr. Beckles while independently designing and modernizing experimental procedure for starch extraction and purification from transgenic wheat lines. Procedure was used to compare the ratios of amylose to amylopectin across the different varieties of wheat seeds.

Performed amylose and amylopectin assays on extracted wheat starch across several transmutated varieties which optimized a comparative analysis of starch composition across genotypes. Comparative analysis included statistical data analysis. Investigated particle analysis of starch granule size.

- Research contributed to significant throughput efficiency for sample analysis.
- Performed data analysis and statistical calculations to compare seed starch composition

The Transient Expression of Novel Genes from *A. thaliana* in Tomato Plants (*Solanum lycopersicum*)

Performed transient expression of novel transcription factors from *Arabidopsis thaliana* in *S. lycopersicum* seedlings which were tested for enhanced fruit development, drought resistance, above ground biomass, and harvest index. Study was instrumental because of its potential to yield hardier tomato plants that produce more fruit for less nitrogen and water input.

- Designed primers and plasmids including novel transcription factors for transformation
- Proficient in the following techniques:

### **Undergraduate Research Conference**

April 2019

The Physio-Chemical Analysis of Starch Granules from Genetically Modified Wheat (*Triticum aestivum L.*)

Created and presented a research poster and delivered a presentation regarding scientific research to attendees within the academic and scientific community as well as the general population.

## Work Experience

---

### **University of California, Davis**

April 2018-June 2019

Transfer and Reentry Center- Peer Advisor

- Supported transfer and reentry students from community colleges and other four year universities to assist in resolution of academic and logistical issues, as well as providing moral assistance and moral support in solving personal issues.
- Completed administrative tasks individually and as a team. Optimized resource utilization to digitalize logging of student program uses. This new application saved the staff upwards of 10 hours per week of data entry.
- Redesigned and edited weekly transfer student newsletter for enhanced readability.
- Reorganized existing filing and developed new administrative practices
- Planned social and academic activities designed for transfer and reentry students such as;
  - Graduate Student Panel: An academic event for UC Davis undergraduate students where UC Davis graduate students, who were once transfer and/or reentry students at their previous universities spoke about their journey to higher education. Planned, marketed, and hosted this event to provide a quick course in graduate school requirements and opportunities for nontraditional students.
  - D.I.Y. Mason Jar Soup: A social and humanitarian event that provided students with access to healthy food that could be stored for multiple months. Planned, budgeted, marketed, and hosted this event to increase food security amongst transfer and reentry students at UC Davis.
  - Plants with Pals: A social event where students and the children of students created succulent planters. Presented about the benefits of having plants in living spaces including their positive effects on mental health and well-being. Planned, budgeted, set-up, and created art for this event. Marketed this event with digital artwork, flyers, newsletter announcements, and via social media posts.

### **The Garden Company, Santa Cruz, CA**

March 2017-June 2017

Nurseryperson and Cashier

- As a working student, watered, groomed, and provided general plant upkeep.
- Informed community about environmental issues such as introducing native pollinators and the importance of supporting insect species. Educated customers about native pollinators and their integral role in supporting healthy ecosystems.
- Provided sales and customer service.

### **The ABRITE Organization, Santa Cruz, CA**

January 2017-March 2017

Behavioral Aide

An organization devoted to care of children on the Autism spectrum by providing one-on-one in-classroom student support.

- Provided session notes to student's parents and ABRITE's behavioral technicians
- Assisted teacher in classroom activities such as integrating student-created artworks into a cohesive wall mural.

### **Anjali Singh Insurance Services, Petaluma, CA**

June 2016-August 2016

Office Intern and Technology Specialist

- Created plan to move all data from individual work stations to an in-house NAS cloud device, and supported maintenance of said device
- Installed and maintained new security systems, printers, and miscellaneous technical support issues.
- Technology help desk and administrative maintenance on computers

### **Sausalito Plus, Sausalito, CA**

May 2015-September 2015

Co-Founder and Supervisor

A nonprofit organization designed to promote bicycle safety in areas of high accident rates. Founded because of numerous accidents coming off of the Golden Gate Bridge and heading into Sausalito. Created a network of people to help bikers get into Sausalito safely, and back into San Francisco with ease and efficiency during tourist season.

- Managed staff, organized schedules, wrote and distributed employee manual
- Recorded and analyzed data to track efficiency of the program.
- Communicated with public, including local government members and wider community

### **Sloat Garden Center, Mill Valley, CA**

May 2014-January 2015

Nurseryperson

- Watered, groomed, provided general plant upkeep

### **Lucky Brand Jeans, Corte Madera, CA**

February 2014-May 2014

Stockroom

- Organized and maintained clothes storeroom

## **Awards and Honors**

---

### **Dean's Honors-University of California, Davis**

2017-2019

Awarded quarterly to the top 16% of class within the College of Agricultural and Environmental Sciences  
Fall 2017, Winter 2019

### **Dean's Honors -University of California, Santa Cruz**

2015-2016

Awarded quarterly to undergraduate students with a grade point average of 3.730 or above  
Fall 2015, Winter 2016

## **Service and Outreach**

---

### **I Dream of COVID**

March 2020-Present

Digital Illustrator and Social Media Manager

- Curated and illustrated art corresponding to submitted dreams
- Raised money for COVID related relief funds
- Managed social media posts and content

### **Gamma Phi Beta-Epsilon Omicron Chapter, Santa Cruz, CA**

January 2016-December 2016

Philanthropy Assistant Vice President

- Organized fundraising and outreach including for local non-profit Girls on the Run chapters and Stanford Children's Hospital
- Raised over \$2000 for Girls on the Run-San Jose chapter via charity events
- Volunteered annually at Girls on the Run marathon in San Jose
- Supervised philanthropy co-chairs to ensure event related tasks were completed on schedule for both Girls on the Run and Stanford Children's Hospital related events

## **Proficiencies and Competencies**

---

- PCR
- *E.coli* Transformation
- Snapgene
- Particle Analysis
- UV-Vis (Nanodrop)
- Thermocycler
- Centrifuge
- pH Meter
- Isotemp Water Bath
- Scientific communication
- Art and Graphic Design
- Using Scientific Methodology

## Computer

- Operating Systems: Windows XP, 7, 8, 10, Mac OS
- Microsoft Office: Word, PowerPoint, Excel, and OneNote
- Programs: Adobe Photoshop, Adobe In-Design, Adobe Illustrator, Adobe Procreate, Final Cut Pro, AutoDesk SketchBook, iMovie

## Key Skills

---

### Botanical

- Member of California Native Plant Society
- Working towards CNPS Botanist Certification
- Created portfolio of botanical illustrations and photographs

January 2020-Present  
November 2019-Present

### Business and Management

- Experienced in supervising teams and conflict resolution
- Effective team communications
- Multitasking and delivering results within tight deadlines
- Knowledgeable in standard operating and safety procedures

## Other Contact Info

---

**Website-** <https://ghgravley.wixsite.com/gracillimum>

Includes photography, digital illustration, watercolor, botanical illustrations, and projects.

<https://www.idreamofcovid.com/>

Includes the digital illustrations created for this project.

### Social Media

- LinkedIn- <https://www.linkedin.com/in/gracegravley/>
- Instagram- <https://www.instagram.com/gracillimum/>
- iNaturalist- <https://www.inaturalist.org/people/gracillimum>