William S. Owens

wowens@ufl.edu • github.com/xeranimus

February 13, 2019

Education

2016–present	**University of Florida, Gainesville, FL** Bachelor of Science in Microbiology (expected May 2020) Bachelor of Science in Computer Science (expected May 2020) GPA: 4.0
2015–2016	**Florida State University, Tallahassee, FL** Dual Enrollment Student GPA: 4.0

Research Interests

I am interested in engineering biology for a wide range of applications. I worked alongside fellow students to construct a de novo metabolic pathway for therapeutic purposes. Interests within the field of synthetic biology include synthetic genetic circuits, high-efficiency genome editing techniques, and artificial gene synthesis. I am driven by a systems-focused view and inspired by a cellular approach to building scalable, elegant software. The information processing capabilities of cells betray a fundamentally computational nature for us to exploit.

Skills

Programming

Proficient with:	Python, C++, Bash scripting, AWK
Familiar with:	Java, C, SQL, Rust, HTML/CSS/JS

Software

Libraries	SDL, Opentrons
*NIX Systems	Experienced with Arch Linux, Ubuntu, Red Hat Enterprise
Image Manipulation	Experienced with GIMP, Inkscape, Photoshop

Laboratory

Molecular Biology	Basic experience (cloning, DNA assembly techniques, cell culture, etc.)
Microscopy	Familiar with optical microscopy (traditional and fluorescent)

Experience

Teaching

Aug 2018–present
S.I. Leader
Organic Chemistry, Dr. Jason Portmess
Prepared comprehensive exams, delivered lecture-style exam reviews to hundreds of students, led smaller weekly discussion sessions.

Aug 2017–Apr 2018
Undergraduate Teaching Assistant (Volunteer)
Organic Chemistry, Dr. Jason Portmess
Graded and proctored exams, led two weekly discussion sessions to help students learn material.

Research

May 2018–present
Student Lab Assistant
Dr. Michael Kladde, Department of Biochemistry and Molecular Biology, University of Florida
Performed major data processing and bioinformatic work for all other members of the Kladde group. Major duties included processing raw sequence data, running cutting-edge pipelines, and generating final data for publication.
Contributed to existing utilites and pipelines maintained by the Interdisciplinary Center for Biotechnology Research at University of Florida. All work completed on HiPerGator 2.0, the powerful clustered computer network at the University of Florida.

Oct 2017–Oct 2018
Team Member
2018 UFlorida iGEM Team
Represented the University of Florida in the International Genetically Engineered Machines Competition, winning silver. Successfully engineered a pathway for butyrate synthesis in E. Coli Nissle with therapeutic applications in mind.

May 2017–Aug 2017
Student Lab Assistant
Dr. Hank Bass, Department of Biological Science, Florida State University
Aided with the maize-10-maze, an outreach program to educate public about maize genetics. Contributed to the development of a program to search for G4 DNA sequences *in silico*.

May 2016–Aug 2016
Volunteer
Dr. Hank Bass, Department of Biological Science, Florida State University
Studied NDPK localization in *Zea mays* using epifluorescence microscopy. Investigated ways to mitigate autofluorescence in maize tissue to image noise.

Community Service

Mar 2017
Volunteer, Second Harvest
Second Harvest Food Bank of Middle Tennessee, Nashville, Tennessee
Volunteered 40 hours over Spring Break with *Florida Alternative Breaks* to alleviate hunger. Processed thousands of pounds of food alongside fellow UF students.

Dec 2015
Eagle Scout, Boy Scouts of America
Troop 44, Tallahassee, Florida
Led troop of 50+ scouts in outdoor and volunteering activities as Senior Patrol Leader. Designed a large, safe, and completely original children's playground to give back to the community.

Extracurriculars

Mar 2018–present	**President** *Open Source Club, University of Florida* Led student organization dedicated to developing free and open source software for the community. Fostered large gains in club membership and member involvement. Oversaw work on 4 concurrent student-run projects.
Apr 2018–present	**Webmaster** *American Physician Scientists Association, University of Florida* Presided over organization's online presence. Duties included maintaining website and mail server.
Mar 2017–Mar 2018	**Vice President** *Open Source Club, University of Florida* Led general body meetings, prepared workshops on open source technologies, and mentored new members in open source practices.
Nov 2017–Apr 2018	**Public Relations Director** *American Physician Scientists Association, University of Florida* Developed organization's social media presence, recruited new members through flyering and aggressive online campaigning.

Awards

Oct 2018	**Silver Medal** Received as a member of the 2018 UFlorida team in the Internationally Genetically Engineered Machines competition.
Oct 2018	**Wentworth Travel Scholarship** Received a $500 travel award to present results at the 2018 iGEM jamboree in Boston.
Oct 2018	**Anderson Scholar, Highest Distinction** Recognized for "high scholastic achievement" during first two years of enrollment in the College of Liberal Arts and Sciences at the University of Florida.
Mar 2018	**Scholar, University Scholars Program** Accepted into the 2018-2019 University Scholars Program at the University of Florida. Received $1,750 grant to pursue metabolic engineering of butyrate pathway in P. freudenreichii. Project switched to E. Coli.
Aug 2016 - present	**Member, Honors Program** Accepted into the Honors Program at the University of Florida.
Aug 2016 - present	**Benacquisto Scholarship** Received all three years at the University of Florida.
Apr 2016	**National Merit Scholar** Received a 4–year corporate–sponsored National Merit Scholarship courtesy of BASF.