# JENIFER A. BROWN

**jenifer-brown.github.io | linkedin.com/in/jenifer-brown**

## SUMMARY HIGHLIGHT

A scientific researcher turned software engineer with over 10 years of laboratory experience. I have a rigorous technical and analytical background, and a knack for solving challenging problems. I am eager to create technology that is accessible to everyone, participate in product design and creation, and advance existing technologies.

- Experience creating and maintaining collaborations between groups within an institution
- Project management skills developed while working on multiple projects at once
- Excellent written and oral communication skills for scientific and lay audiences, both large and small
- Experience with Java, HTML, CSS, JavaScript, React, Git, IntelliJ IDEA, and Visual Studio
- Android (mobile) app development and web app development
- Ability to debug, optimize code, troubleshoot, and automate tasks

## EDUCATION

**Stanford University School of Medicine** *September 2016 – June 2021 PhD, Biophysics* – GPA: **3.95/4.00**
*Crystallographic studies of 2'3'-cGAMP hydrolysis by ectonucleotide pyrophosphatase/phosphodiesterase 1*

- GRE: Verbal Reasoning: 166, 96th percentile; Quantitative Reasoning: 165, 90th percentile; Writing: 5.0, 93rd percentile

**Harvard University** *September 2011 - May 2015 BA, Chemistry; Honors Thesis* – GPA: **3.73/4.00**

## FELLOWSHIPS & GRANTS

**National Science Foundation Graduate Research Fellowships Program (NSF GRFP)** *2017 - 2021*

- Recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based doctoral degrees
- **1 of 2,000 awarded students selected from a pool of over 13,000 applicants**

## WORK EXPERIENCE

**Microsoft, Software Developer II** *August 2022 – Present*

- Debugging, troubleshooting, implementing and improving new features on the Azure Machine Learning/Artificial Intelligence Platform

**Google Tech Training Fellowship, Web Development Fellow** *January 2022 - Present*

- Yearlong paid fellowship program designed to increase diversity in the tech field
- Building JavaScript, HTML, and CSS skills while growing a professional portfolio and network

**Stanford University, PhD Thesis Lab** *January 2017 – June 2021*
*Crystallographic studies of 2'3'-cGAMP hydrolysis by ectonucleotide pyrophosphatase/phosphodiesterase 1*
*Mentor: Dr. Lingyin Li, Department of Biochemistry, ChEM-H Fellow*

- **Researched, planned, executed, and troubleshooted** protein construct design, purification methodologies, and crystallization. Probed protein-protein interactions using SPR (Biacore T200), ELISAs, and Western Blots.
- Published two papers describing small molecule interactions with ENPP1 via X-ray crystal structures and activity assays
- **Coordinated and maintained collaborations** with Stanford's Macromolecular Structure Knowledge Center

- Composed and presented summaries of published journal articles and my research for Stanford's Biochemistry Department

**Stanford Office of Technology Licensing, Technology Licensing Intern** *December 2020 – June 2021*

- Corresponded with faculty and technology licensing associates to help the business development and marketing team draft, refine, publish, and otherwise distribute marketing abstracts.
- **Evaluated incoming invention disclosures**, including patent landscape and potential markets
- **Conducted market research** to evaluate invention portfolios: including competitive intelligence analysis, partnering opportunity identification, and targeted marketing campaigns.
- Collaborated within to engage with inventors, other Stanford stakeholders, and conference organizers to prepare for industry partnering events.
- Analyzed and created marketing materials for **over 20 inventions**, leading to several inquiries and at least **1 licensing agreement**

**Genentech, Early Discovery Biochemistry Intern** *South San Francisco, CA June 2019 – August 2019*
*Mentors: Elizabeth Helgason, Dr. Erin Dueber, Early Discovery Biochemistry Department*

- Supported and advanced on-going research by cloning and purifying protein constructs, analyzing protein-protein interactions using surface plasmon resonance (SPR) and biolayer interferometry, and solving two sub-2Å crystal structures
- **Presented final results to the head of the Early Discovery Biochemistry Department**

**Stanford University ADVANCE Summer Program** *July 2016 – September 2016*
*Creation of an in vivo sensor of CAT-tail aggregation Mentor: Dr. Onn Brandman, Biochemistry Department*

- Started graduate school early with a two-month program for incoming underrepresented graduate students. Engaged in workshops, an R programming course, and community dialogues
- Worked in Dr. Brandman's lab as a rotation student designing and generating a molecular tool for future studies

## PUBLICATIONS & PRESENTATIONS

**Structure-Aided Development of Small-Molecule Inhibitors of ENPP1, the Extracellular Phosphodiesterase of the Immunotransmitter cGAMP.**
Carozza, J.A., Brown, J.A., Böhnert, V., Fernandez, D., AlSaif, Y., Mardjuki. R.E., Smith. M., Li. L. Cell Chem Biol. 2020.

**Extracellular cGAMP is a cancer-cell-produced immunotransmitter involved in radiation-induced anticancer immunity.**
Carozza, J.A., Böhnert, V., Nguyen, K.C. *et al.* Nat Cancer. 2020.

**Annual Biomedical Research Conference for Minority Students**, November 2019, Anaheim, CA

**15th Annual Biophysics and Molecular Structure Course**, Student Presenter, May 2017, Erice, Italy**.**
*Engineered Chimeric Natural Resistance-Associated Macrophage Protein (Nramp) for Co-Crystallization*.
Brown, J.A., Bane, L., Gaudet, R.

## SKILLS & INTERESTS

**Skills:** Java (Fluent), C++ (Intermediate), JavaScript (Beginner), Python (Beginner), Microsoft Office Suite (Word, Excel, PowerPoint, etc.), quick learner, excellent written communication, public speaking experience
**Other Interests:** Travel (**Spain, England, China, Germany, Morocco,** and more), guitar, solo backpacking (Continental Divide Trail 2021), oil painting, running (**American Tobacco Trail Marathon Finisher 2022, Crystal Springs Half Marathon Trail Race Finisher 2019, Lake Tahoe Triathlon Relay Finisher 2018**)