Carolyn R. Stewart

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EDUCATION

Princeton University, Princeton, NJ June, 2016
A.B. in Molecular Biology (Cumulative GPA: 3.52)
Certificate in Applications of Computing

- Relevant classes include Genetics, Biochemistry, Core Molecular Biology Lab, Bioinformatics, Data Structures and Algorithms, Advanced Programming Techniques, Linear Algebra
- Senior Thesis and Junior Independent Research: The Characterization of the Synthesis of Eicosanoyl-5-Hydroxytryptamide

PROGRAMMING SKILLS

- Languages: Java, C, Python, R (proficient), JavaScript, HTML (prior experience)
- Familiar with Git, Linux/Unix, Ember, Django, relational and non-relational databases

RELEVANT EXPERIENCE

Software Developer Intern, The Center for Open Science, Charlottesville, VA Summer 2016

- Building web service to meet federal mandate, allowing electronic submission of published research to government agency databases, using Ember and Django

Senior Thesis Research, Jeffry Stock Laboratory, Summer 2015 – Spring 2016
Princeton University

- Worked to characterize activity of a novel enzyme important for brain health, providing a potential therapeutic target in the prevention of neurodegenerative disease
- Created protein extracts from a variety of animal tissues
- Used high-performance liquid chromatography to detect target enzyme activity
- Used BLAST and PROSITE to search for homologs in mammalian proteomes
- Used PyMOL to model known homologous structures

Final Bioinformatics Project, Princeton University Fall 2015

- Collaborated with three other students to determine whether non-random eukaryotic gene order is driven by need for low recombination rates in essential genes
- Used R to recreate the bioinformatic analysis of a 2000 Nature Genetics paper

Undergraduate Researcher, Celeste Nelson Laboratory, Summer 2014
Princeton University

- Worked on bioengineering project aimed at understanding lung development using chicken embryos as a model, in order to eventually develop synthetic human lung tissue
- Extracted embryonic chick and quail lungs; performed immunohistochemical staining; imaged with confocal microscopy; analyzed with GIMP

LEADERSHIP

Artistic Director, Expressions Dance Company December 2013-December 2015
Princeton University

- Oversaw all artistic matters for the dance company, including choreography, casting, costuming, scheduling, and member conflicts and absences
- Led all full-company rehearsals of 30 dancers
- Managed other seven company officers