

Karly Sindy

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I can develop multi-functional websites including database integration using LAMP stack. I transitioned to this field when I saw a need for automated analysis that was not being met. My website now saves time and money for several academic labs. I have worked both in academic research and the medical device industry.

Technical Skills

My capabilities are proven in the following areas:

Languages: Python, R, CSS, HTML, Bash

Technologies: Linux, MySQL, Django, Docker, Jupyter Notebooks, GitHub, Adobe Photoshop

Education

Master of Science in Molecular Biology/Biotechnology, East Carolina University, Greenville, NC- May 2009

Bachelor of Science in Biological Sciences, North Carolina State University, Raleigh, NC- May 2007

Professional Training

Python for Bioinformatics, University of Colorado Denver- May 2015

Eukaryotic Genome Annotation Course, J Craig Venter Institute, Rockville, MD- September 2009

Professional Experience

University of Colorado Denver- February 2012 - August 2016

Worked with a team of scientists researching the epigenetic formation and regulation of chromatin.

- I wrote python code to perform high throughput analysis on millions sequencing reads to discover significant genomic areas of interest.
- I planned and performed experiments to discover the mechanism of long non-coding RNA's involvement in chromatin silencing.
- Publication: Meredith EK, Balas MM, Sindy K, Haislop K, Johnson AM2. An RNA matchmaker protein regulates the activity of the long noncoding RNA HOTAIR. 2016. RNA 22(7):995-1010.

Allosource- February 2011-February 2012

Worked with the Stem Cell group of the R&D team at AlloSource.

- Completed seven research and development projects. This process included independently designing and performing studies that directly affected product process changes and writing approved SOP reports. During this process, I have implemented new techniques and assays to the lab such as: zymogram gels, IF-IHC, and metabolic cell count assays.
- Worked with third party companies in order to transition two product processes for validation.

National Jewish Health July 2010- February 2011

Participated in research related to Immunology

- Independently conduct experiments related to Staphylococcal Infections.

- Treat HaCat, primary human keratinocyte cells with Staphylococcal toxins and extract protein and RNA and make cDNA followed by qPCR, western blot, cell death assays and plaque assays.

Syngenta- January 2010-July 2010

Member of vector construction team.

- Independently designed and performed an experiment comparing the efficiency of 12 different competent cell lines for use company wide.
- Perform restriction digests, DNA isolation, ligation, transformation and related cloning procedures for use in a high throughput vector construction team.

East Carolina University- Department of Biology, Greenville, NC

August 2007-May 2009

Completed a research based masters thesis.

- Microinjected genetically modified adenoviral constructs to target the over-expression of two domains of the versican molecule in the developing chick limb in order to better understand the role of a proteoglycan in osteogenesis. Utilized my skills in PCR, immunohistochemistry, adenoviral biology, mammalian cell culture and microinjections.
- Publication: Hudson, K.S., Andrews, K.A., Early, J.K., and T.T. Capehart. Overexpression of the G1 Domain and V3 Isoform of Versican During Chick Limb Development In Ovo. 2010. Anatomical Record 293(10):1669-1678.

Academic Honors, Awards, and Affiliations

Presidential Management Fellowship Nominee, Spring 2009

Recipient of James McDaniel Scholarship, 2008-2009, Department of Biology, East Carolina University

Mentor for Emerging Leaders Program Fall, 2008, East Carolina University

Member of Emerging Leaders Program Spring 2008, East Carolina University

Dean's List Fall 2002-Spring 2007, North Carolina State University

University Scholars Program, North Carolina University

Volunteer and Enrichment Activities

Yoga Instructor, Denver, CO January 2012-2015

Raptor Handler, Hawk Quest, Parker, CO 2013-2015

Animal Assisted Therapy Volunteer, November 2011- 2013

Transplantation Sciences Education Team Member, Centennial, CO 2011

Reading Buddy at Kunsberg School, Denver, CO 2010

Intramural Soccer 2008-2009