K. Jeselle Clark

Bioinformatician, Cancer Researcher, Biological Software Developer
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EDUCATION

ROCHESTER INSTITUTE OF TECHNOLOGY
BS & MS Bioinformatics 2019,
Magna Cum Laude
Rochester, NY

COURSEWORK

GRADUATE
Bioinformatics Algorithms
Molecular Modeling and Proteomics
Biostatistics
Genetic Diseases and Disorders
Statistical Analysis for Bioinformatics

UNDERGRADUATE
Cancer Biology
Infectious Diseases
Bioinformatics Languages
Genetic Engineering
Genomics
Tissue Culture

TOOLS

PROGRAMMING
R · Python · Java · Linux · SQL ·
OpenAPI · HTML · CSS · JSP · Minitab ·
SAS · Awk

EQUIPMENT
Illumina MySeq · Biosafety Cabinet ·
Confocal Microscopy

INTERESTS

• Former Dance Instructor at Groove Juice Swing in Rochester, NY
• Served 4 years as Vice President of the organization Brick City Boppers
• Served 1 year as public relations officer for Humans Versus Zombies
• Website Design Dabbler (work example available at hogs.rit.edu)

NOTABLE MOMENTS

• Presenter at Rochester's Inaugural Taste of Science Lecture Series
• Regular Dean's List Awardee

EXPERIENCE

SOFTWARE ENGINEER I-II
Essex Management, LLC
Jun 2019 – Feb 2020; Oct 2020 – Present | Rockville, MD
Leidos Biomedical Research, Inc.
Feb 2020 – Sept 2020 | Rockville, MD
- Develops RESTful API schemas and serverless applications for the precision medicine trials at the National Cancer Institute (NCI).
- Provides biological insight to technical teams, documenting and communicating the data needs of cancer biology.

FULL STACK BIOLOGICAL SOFTWARE DEVELOPER
Thomas Giant Phage Lab
Summer 2018 | RIT
- Full stack of development for a web-based tool for the bioinformatics analysis of giant phage.
- Redesigned an existing database, developed a novel way to represent said database, and initialized a server to host and manage the web tool.

BIOINFORMATICS AND COMPUTATIONAL BIOSCIENCES BRANCH INTERNSHIP
National Institute of Allergy and Infectious Diseases, NIH
May 2017 – Aug 2017 | Bethesda, MD

- Worked independently to create a parallel environment pipeline comparing variant callers for use in analyzing a viral genomics database.
- Attended lectures at the main campus of NIH on CRISPR developments, preliminary malaria vector elimination research, and international efforts towards eradicating disease.

RESEARCH

MASTERS THESIS IN OVARIAN CANCER EMT
Rochester General Hostpital & RIT
June 2018 – April 2019
Using a systems biology approach, integrated publicly available proteomic data with circuit diagrams of protein interactions to model the epithelial-mesenchymal transition in ovarian cancer.
- Thesis Publication: Simulating Pathway-Based Steady States to Prevent Epithelial-Mesenchymal Transition in Ovarian Cancer
- Related Publication: Capturing the pathway logic of cell signaling for epithelial-mesenchymal transition in ovarian cancer cell lines.

NGS AND CHROMATIN REMODELING RESEARCHER
Cui Bioinformatics Cancer Lab | RIT
Nov 2015 – Sept 2016
Got access to research computing cluster in order to use large PanCancer RNA-Seq data sets to study copy number variation and chromatin remodelling events.