Induja Chandrakumar

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Experience

Doxey Lab, University of Waterloo - Undergraduate Bioinformatics Researcher February 2016–present

- Analyzed large genomic data via analysis pipelines and bash/python scripts
- Uncovered new information about the evolution in Arabidopsis thaliana, a central plant in genetics
- Conducted self-directed research, and communicated findings to the supervising professor using data visualization in R

Lolle Lab, University of Waterloo – Research Assistant May 2016–August 2016

- Created bash scripts to determine support for the supervising professor's hypothesis
- Communicated the workings of my programs to a non-technical professor of plant biology
- Performed hands-on biology: isolating DNA from plant samples, running PCR reactions and gel electrophoresis, etc.

Education

University of Waterloo · Bachelor of Computer Science, Honours 2015–2019

- Selected Coursework: Object Oriented and Functional Paradigms · Probability

University of Waterloo · Bachelor of Science – Biology, Honours 2015–2019

- Selected Coursework: Bioinformatics · Applied Molecular Biology · Statistics

Projects / Extracurriculars

^/Hour of Regex/$ · Android (Java, Python) September 2016

- Created tutorial app to interactively teach the basics of Regular Expressions
- Acquired 3000+ users, from over 80 countries
- App available on Google Play Store

Biology Syntax Highlighting for Sublime Text (Python) August 2016

- Syntax highlighting for common file formats used in Bioinformatics (FASTA, phylip, newick)

Triangle Tetris · Java (Swing) August 2015

- Reimagining Tetris, with rotating triangles as opposed to blocks

Science Advisor - University of Waterloo Robotics Team, Mars Rover September 2015–September 2016

- Collaborated science plan as only biologist on a tech-oriented team of chemists and engineers, using both own knowledge about extremophiles and copious amounts of research/literature searches
- Developed skills in programming for robotics using the ROS (Robot Operating System) framework

Languages

Proficient in: Java, C++, Python

Exposure to: C, Racket/Scheme, Scala, R, SQL, Ruby, HTML/CSS, Javascript, ROS, Tensor Flow

Research Interests

All things genomics · Evolution · Statistical modelling of complex systems