Arun Durvasula

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Education

BS Biotechnology, Microbiology and Fermentation, University of California Davis 2015 (expected)

High School Diploma, Saint Francis High School, Mountain View, CA 2011

Experience

Mobile Game Programmer, Self-Employed/Hobby. March 2014 - Present

Avalanche Escape: sole programmer and designer for mobile (Android and iOS) game, *Avalanche Escape* (not yet released).

Intern, Ross-Ibarra Lab. University of California, Davis, Department of Plant Sciences. June 2013 - Present

Evidence of selection on putative sugar transport genes: used population genetic methods to look for evidence of selection on genes putatively linked to sugar transport in *Zea mays* spp. *mays* endosperm.

Re-estimation of the maize domestication bottleneck: used genetic simulations on a large computer cluster to re-estimate the strength of the maize domestication bottleneck using R and open source scientific software.

Lab documentation: wrote documentation and tutorials for computer cluster usage for use by lab members.

Libsequence: contributed to open source library libsequence to add support for the VCF file format.

Technical Reviewer, O'Reilly Media. December 2013 - Present

***Bioinformatics Data Skills* by Vince Buffalo:** ensured accuracy of code and information in upcoming book.

Research Assistant, Tagkopulous Lab. University of California, Davis, Genome Center. January 2013 - June 2013

***Escherichia coli* simulator:** created the methodology used to model the metabolism in a novel whole cell simulation of *E. coli* using Matlab.

Intern, Williams Lab. University of California, Davis, Department of Entomology. July - September 2012

Resource competition between *Apis mellifera* and *Peponapis pruinosa*: field and lab work to measure pollen and nectar amounts in squash flowers after visitation by competing species of bees.

Effects of tillage depth on *Peponapis pruinosa* overwintering survival: set up cages to house squash bees and monitored conditions by checking for nests in the ground, conducting floral surveys and checking status of squash bees released into cages.

Skills

Programming: Python, Bash, Awk, Haxe, C, C++, Ruby, Java, Javascript, HTML, CSS

Frameworks/Libraries: Django, Rails, Scikit Learn, OpenFL, HaxeFlixel, Scipy, Numpy, Matplotlib,

Tools: Git, IPython, LaTeX, Slurm, Sun Grid Engine

Data analysis: R, Matlab, MySQL, Machine learning

Hardware: Arduino, Raspberry Pi

Molecular biology: PCR, Gel electrophoresis, RFLP, Bacterial transformation, Genomic DNA isolation

References

Jeffrey Ross-Ibarra

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Ilias Tagkopulous

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