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W. Augustine Dunn, III

Experience

2014–present **Postdoctoral Associate**, *Dept. of Ecology and Evolutionary Biology*, Yale University, New Haven, CT.

Tsetse.

Highlights:

- *Implemented a Bayesian filtering method for setting thresholds for "interesting" SNP-pairs based on distributions of distance binned linkage disequilibrium values in ddRAD-based population genomics results.*
- *Designed and implemented relational database to track and curate field samples.*
- *Established and maintained a shared environment modules-based software library for the lab group on one of the super-computing clusters here at Yale.*
- *contributed to pyrad (an open-source RAD-seq analysis pipeline) by re-factoring the repository structure and allowing it to be installed in the standard* `pip install pyrad` *form – substantially increasing the potential user-base.*

2009 **Master Consultant**, *KDH Research & Communication*, Atlanta, GA.

Reviewed and provided *pro bono* feedback and corrections on materials for "*Genetics for Kids*" modules, a supplement for communicating genetics in public school curricula.

2009 **Graduate Teaching Assistant**, *School of Biological Sciences*, University of California, Irvine, Irvine, CA.

BIO SCI M137 — Microbial Genetics

2009 **Graduate Laboratory Assistant**, *School of Biological Sciences*, University of California, Irvine, Irvine, CA.

BIO SCI M118L — Experimental Microbiology Lab

2006–2007 **Research Laboratory Technician**, *Geomicrobiology Group*, University of Southern California, Los Angeles, CA.

Studied microorganisms' role in mediating the mechanisms of rock, mineral, and organic matter transformations on progressively older mid-oceanic basalt samples.

Highlights:

- *Set up a new lab and interfaced with construction contractors while supervisor was at sea.*
- *Established the lab's capacity to perform qPCR for the purpose of comparing bacterial population structures on aged basalt.*

2003–2006 **Laboratory Technician II to Research Professional I**, *Dept. of Cellular Biology*, University of Georgia, Athens, GA.

Characterized the expression and annotated the gene models of cuticular protein genes in *Anopheles gambiae*.

Highlights:

- *Established the lab's capacity to perform qRT-PCR.*
- *Trained multiple other labs in the execution and avoidance of common pitfalls of qRT-PCR.*
- *Wrote several bespoke Perl tools to aid in primer design and a web-based primer database to manage the hundreds of primer-pairs generated by the project.*

Technical Expertise

Computer Skills

expert	Python, Bash, SGE and PBS HPC schedulers, YAML, HTML, CSS, XML, LaTeX, pandoc, markdown, reStructuredText, Git, Python software packaging and templating, software documentation with Sphinx, Gnu Parallel
intermediate	Perl, R, JSON, vim, unit testing, Mercurial, Bazaar, Subversion
basic	MySQL, PostgreSQL, SQlite, Lua, Tcl, Apache, javascript
Python libs	pandas, scipy, numpy, statsmodels, pyMC, matplotlib/pyplot, seaborn, ggplot, rpy2, networkx, pybedtools, pysam
miscellaneous	OSX, Windows, Linux, MS Word, MS Excel, Photoshop/Gimp, Illustrator/Inkscape

Authored Software

blacktie	An object oriented python pipeline that simplifies and streamlines the running of complex tophat/cufflinks-based RNA-seq experiments into a single command plus a configuration file: designed with repeatability and usability as priorities (repository: `https://pypi.python.org/pypi/blacktie`).
	◦ *Downloaded from `https://pypi.python.org` **over 9,000 times**.*
gFunc	A python-based integrative analysis framework using network graphs to combine multidimensional data-types from disparate "Omics" sources for creating/exploiting functional-genomic gene sets across multiple species.
spartan	A personal "spartan" bioinformatics package, providing the essentials and nothing fancy or luxurious. Enough to get the job done quickly without flourish when that is all that is called for.

Education

2008–2014	**PhD, Biological Sciences**, *University of California, Irvine*, Irvine, CA.
topic:	*Comparative Transcriptomics of Blood-feeding in Midguts of Three Disease-vector Mosquito Species*
advisor:	Professor Anthony James (Molecular Biology & Biochemistry)
co-advisor:	Professor Xiaohui Xie (Department of Computer Science)
1998–2003	**BS, Biology (*emphasis in molecular genetics*)**, *University of Georgia*, Athens, GA.
mentor:	Professor Judith Willis

Selected Coursework

University of California, Irvine	Representations & Algorithms for Molecular Biology, Probabilistic Modeling of Biological Data, Quantitative Methods in Biology

Honors and Awards

2011	The Pacific-Southwest Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Annual Meeting Travel Award.
2010	President of UCI's IGB Biomedical Informatics Training fellows
2009-2012	Biomedical Informatics Training fellow (NIH/NLM 5T15LM007443)

Activities

2004–2007 **Ultimate Frisbee Club Team**, *UCLA*, Los Angeles, CA.

Practiced four times a week and traveled across the western united states for between 10 and 12 tournaments each year.

2007–2011 **Ultimate Frisbee Club Teams**, *UW-Madison*, Madison, WI.

Practiced and traveled with three Madison based ultimate frisbee club teams. Played in numerous recreational leagues.

2007–2011 **Engineers Without Borders**, *UW-Madison*, Madison, WI and Orongo, Kenya.

Began a long term irrigation system project to allow the members of Orongo to grow more profitable crops. Started an income generating agroforestry project at a Kenyan Primary School. Built and tested prototype biosand filters in both Kenya and Madison. Built and tested prototype low cost solar cookers in both Kenya and Madison.

2011-present **Ultimate Frisbee Club Teams**, *Ultimate Chicago*, Chicago, IL.

Coached, captained, and played on several teams in recreational leagues.

Other Current Hobbies.

Web Programming, Camping, Hiking, Backpacking, Traveling, Road Trips, Basketball, Piano, Guitar

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Company Recruitment team
Company, Inc.
123 somestreet
some city

January 01, 1984

Dear Sir or Madam,

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis ullamcorper neque sit amet lectus facilisis sed luctus nisl iaculis. Vivamus at neque arcu, sed tempor quam. Curabitur pharetra tincidunt tincidunt. Morbi volutpat feugiat mauris, quis tempor neque vehicula volutpat. Duis tristique justo vel massa fermentum accumsan. Mauris ante elit, feugiat vestibulum tempor eget, eleifend ac ipsum. Donec scelerisque lobortis ipsum eu vestibulum. Pellentesque vel massa at felis accumsan rhoncus.

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Albert Einstein discovered that $e = mc^2$ in 1905.

$$e = \lim_{n \to \infty} \left(1 + \frac{1}{n}\right)^n$$

Yours faithfully,

W. Augustine Dunn, III

Attached: curriculum vitæ