

AUSTIN M. PUTZ – CURRICULUM VITAE

PERSONAL INFORMATION

Austin M. Putz
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[LinkedIn Profile](#)
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Summary:

Background: Grew up on a diversified family farm in southern Iowa. Experience in most species except Dairy.

Experience: Took positions at three different genetics labs as an undergrad. Internships with Fast Genetics (on farm), Smithfield Premium Genetics (SPG) in R&D, and The Maschhoffs as a geneticist on special projects. Valuable experience to see real world breeding programs.

Classwork: Nine graduate level statistics courses. Many online (7) and in-class (2) animal breeding classes. Bioinformatics I and Immunology also.

Technical skills: Numerous technical skills gained during the M.S. and Ph.D. Includes R, Linux, bash scripting, L^AT_EX, Julia, ASReml, SAS, and SQL.

Current: Ph.D. student with Dr. Jack Dekkers at Iowa State University working on disease resistance.

EDUCATION

Ph.D. in Animal Breeding and Genetics from Iowa State University (2015-2018(expected)). Thesis advisor: Jack C. M. Dekkers
Project on disease resistance in swine.
GPA: 3.78

M.S. degree in Animal Science from North Carolina State University (2013-2015). Thesis advisor: Mark Knauer. Committee: K. A. Gray (Smithfield), C. Maltecca (NCSU), H. Bondell (Stats NCSU). Thesis title: *Alternative Litter Size Traits to Increase the Number of Weaned Pigs in Swine*. [Thesis](#)
GPA: 4.0

B.S. degree in Animal Science from Iowa State University (2009-2013).
GPA: 3.93 (Summa Cum Laude)

COMPUTER SKILLS

Programming/scripting languages Advanced: R, Bash scripting
Intermediate/Beginner: Julia, Python (3)

Genetic Software BLUPF90, ASReml, DMU (some), GenSel, JWAS (Julia)

Reporting L^AT_EX(e.g. this CV)

Operating systems Extensive experience with Mac OS. Solid experience with Ubuntu (Debian). Some experience with Windows.

Servers Has successfully set up a home server (Ubuntu 16.04.1) to run genetic analyses (ssh, GenSel, BLUPF90, ASReml, R, Julia)

Databases Basic experience with SQL (SQLite)

Other GitHub, vim/awk/sed, SAS (modeling)

Open source projects Provide much of my code and help files through GitHub
<https://github.com/austin-putz>

WORK EXPERIENCE	<p>2015 - Intern Geneticist (Carlyle, IL) The Maschhoffs</p> <p>2013 - R&D Intern (Rose Hill, NC) Smithfield Premium Genetics</p> <p>2012-2013 - Swine Molecular Genetics (Ames, ISU) Dr. Chris Tuggle</p> <p>2012 - Breeding & Farrowing Tech (Cando, North Dakota) Fast Genetics</p> <p>2012 - Beef Genetics Lab (Ames, ISU), Dr. James Reecy</p> <p>2011 - Soil Microbiology Lab (Ames, ISU), Dr. Kirsten Hofmockel</p> <p>2010-2011 - Barn Crew Member (Ames, ISU) ISU Vet School</p>
TEACHING	<p>Animal Breeding (undergrad) TA Spring 2017 under Dr. Bundy. Responsible for 1 lab section.</p> <p>Swine Systems Management TA Fall 2016 under Dr. Stalder</p> <p>Reproductive Physiology TA 2 semesters at NCSU</p> <p>Organic Chemistry Tutor Spring 2012</p>
PROJECTS	<p>All available on GitHub https://github.com/austin-putz</p> <p>BLUPF90 wrapper Linux/Unix wrapper for BLUPF90 programs (many analyses)</p> <p>BLUPF90 man pages man pages (Linux/Unix) for most BLUPF90 family of programs</p> <p>vim syntax highlighting vim syntax highlighting for QMsim and BLUPF90</p>
HONORS & AWARDS	<p>2016 Lauren L. Christian Graduate Fellowship (Dept AnS)</p> <p>2016 Caine-Bogle Family Graduate Fellowship (CALS)</p> <p>2015 Miller Graduate Fellowship (ISU)</p> <p>2013 National Pork Board Scholarship</p> <p>2012 Kenneth and Ruth Wagner Scholarship</p> <p>2012 Arthur Molln Scholarship</p> <p>2011 Lane Wells Scholarship</p>

PUBLICATIONS	<p>Putz, A. M., K. A. Gray, C. Maltecca, F. Tiezzi, and M. T. Knauer, <i>A comparison of accuracy validation methods for genomic and pedigree based predictions of swine litter size traits in Large White and Landrace breeds</i>, J. Anim. Sci (submitted)</p> <p>Putz, A. M., K. A. Gray, C. Maltecca, F. Tiezzi, and M. T. Knauer, <i>Variance component estimates for alternative litter size traits in swine</i>, J. Anim. Sci 93 (2015). doi:10.2527/jas2015-9416 https://www.ncbi.nlm.nih.gov/pubmed/26641035</p>
ABSTRACTS	<p>Putz, A. M., J. C. S. Harding, F. Fortin, G. S. Plastow, and J. C. M. Dekkers, <i>A natural challenge model for disease resilience in wean-to-finish pigs</i>, (2017) Presented orally at ASAS Midwestern Section.</p> <p>Putz, A. M., C. R. Schwab, A. D. Sewell, and J. C. M. Dekkers, <i>The effect of PRRS virus disease outbreak on genetic parameters of reproductive performance in pigs</i>, (2016) Presented with poster at ICQG.</p> <p>Putz, A. M., K. A. Gray, C. Maltecca, F. Tiezzi, and M. T. Knauer, <i>Accuracies of genomic and pedigree based predictions for swine litter size traits in Large White and Landrace breeds</i>, (2015) Presented orally at ASAS Midwestern Section.</p> <p>Putz, A. M., K. A. Gray, C. Maltecca, F. Tiezzi, and M. T. Knauer, <i>Variance component estimates for alternative litter size and piglet mortality traits</i>, (2014) Presented orally at ASAS Midwestern Section.</p>
SHORT COURSES	<p><i>Programming and computer algorithms in animal breeding with focus on genomic selection and single-step GBLUP</i>, (2014) University of Georgia</p>
REFERENCES	<p>Jack C. M. Dekkers Distinguished Professor, ISU jdekkers@iastate.edu</p> <p>Mark Knauer Assistant Professor, NCSU mtknauer@ncsu.edu</p> <p>Clint Schwab Director of Genetics, The Maschhoffs clint.schwab@pigsrus.net</p> <p>Kent Gray Lead Geneticist, Smithfield Premium Genetics (SPG) kent.gray@spgenetics.com</p> <p>Chris Tuggle Professor, ISU cktuggle@iastate.edu</p>