

caleb tebbe

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EDUCATION

COLORADO STATE UNIV.

MCS IN COMPUTER SCIENCE

Spring 2016 | Fort Collins, CO
GPA: TBD / 4.0

BS IN COMPUTER SCIENCE

Grad. Spring 2014 | Fort Collins, CO
GPA: 3.5 / 4.0

LOVELAND HIGH SCHOOL

Grad. Spring 2010 | Loveland, CO
GPA: 3.7 / 4.0

COURSEWORK

GRADUATE

Advanced Algorithm Analysis and Design
Advanced Artificial Intelligence
Machine Learning
Object Oriented Design Patterns
Parallel Program Analysis and Design

UNDERGRADUATE

Distributed Systems
Analysis of Algorithms
Operating Systems
Computer System Organization
Object Oriented Design
Data Structures
Systems Security
Database Systems and Design
Principles of Programming Languages
Geographic Information Systems
Unix Shell and Scripting

SKILLS

PROGRAMMING

Java • Python • C • C++ • Shell
Visual Basic • HTML • \LaTeX • Racket
Json • XML • SQL • NoSQL

FRAMEWORKS

Android 4.0+ • Play! 2.0 • Django 1.7
Hadoop 2.3.0 • OpenMP • MPI • CUDA

EXPERIENCE

U.S. DEPT. OF AGRICULTURE | SOFTWARE ENGINEERING INTERN

January 2012 – Present | Fort Collins, CO

- Developed, deployed, and provided technical support for software under Jorge Delgado within the Soil Plant Nutrient Research Unit (SPNR).
- Nitrogen Index 4.4+ - Java Swing Desktop application used by researchers, educators, and industry professionals for obtaining, regulating, and analyzing real-world agricultural field data.
- Developed custom Nitrogen Index versions for Kentucky and Wisconsin NRCS which was written into NRCS 590 state law for each.
- Developed Nitrogen Index TierZero - The first simple model available to developing areas in Mexico and Malawi, Africa (see *Peer Review Publications*).
- Developed Nitrogen Index 4.4 Android - The first peer-reviewed mobile modeling application (see *Peer Review Publications*).
- Maintained NLEAP GIS 5.0 - A Java Swing application wrapped around the NASA GeoWind GIS library.
- Assisted SPNR scientist Dan Manter in bootstrapping PhyloDB - A Django application for uploading and visualizing micro-organism taxonomy data.

USDA-APHIS VETERINARY SERVICES | TECHNOLOGY CONSULTANT

June 2013 – December 2013 | Fort Collins, CO and Remote

- Provided technical guidance and programming support to a team of animal scientists to develop an educational scenario-based Android proof-of-concept to promote the concept of One Health to students and enthusiasts.
- Project funded by the Veterinary Services Grassroots Grants program.

COLORADO STATE UNIVERSITY FOOTBALL | VIDEO COORDINATOR

August 2010 – January 2012 | Fort Collins, CO

- Captured and edited raw football footage for analysis by team staff and players.

A GOOD MOVING COMPANY | MANAGER

May 2010 – January 2012 | Fort Collins, CO

- Led teams of 2+ in moving clients' property and was the initial point of contact.

ACCOMPLISHMENTS

- 2008 Awarded rank of Eagle Scout by The Boy Scouts of America
- 2013 NIndex 4.4.1 received NRCS Certified Computer Examiner (CCE) credentials
- 2013/14 Received Excellence in Performance Award(s) from USDA-ARS-SPNR
- 2014 Co-founder/VP of Colorado State University Cryptocurrency Club
- 2014 Placed 1st at Coin-orado Bitcoin Hackathon (Boulder, CO)

PEER REVIEW PUBLICATIONS

- Delgado, J.A., Kowalski, K.D., and **Tebbe, C.** 2013. The First Nitrogen Index Application for Mobile Devices: Using Portable Technology for Smart Agricultural Management. *Computers and Electronics in Agriculture*. 91:121-123.
- Saynes, V., Delgado, J.A., **Tebbe, C.**, Etchevers, J.D., Lapidus, D., and Otero-Arnaiz, A. 2014. Use of the new Nitrogen Index tierzero to assess the effects of nitrogen fertilizer on N₂O emissions from cropping systems in Mexico. *Ecological Engineering*. 73:778-785.