LIQIANG **HE**

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Education

M.S.:	**Computer Science**	Oregon State University	GPA: 3.6	**06/2017**
M.Eng:	**Mechanical Engineering**	Oregon State University	GPA: 3.5	**07/2015**
M.S.:	**General Mechanics and Basic Mechanics**	Southwest Jiaotong University		**07/2007**
B.S.:	**Mechanical Engineering**	Southwest Jiaotong University		**07/2004**

Work Experience

Research Assistant **10/2015 to Current**

Oregon State University, Corvallis, Oregon, US

- Explored the idea of treating Species Distribution Models as a classification problem with class-conditional label noise in the context of citizen science data. This novel model outperforms all current methods used in ecology.
- Implemented a single-observation occupancy model using the R package “unmarked”, and visualized results with R package “ggplot2”.

Manager of Biding & Project Management **07/2007 to 02/2011**

Jinxiang Sports Facilities Engineering Co, Suzhou, Jiangsu, China

- Finished 21 projects, with a total budget amounting to more than $6,500,000.
- Liaisoned with customers, including schools and local government.
- Built and Maintained strategic partnership with suppliers.
- Led and managed a 23-person construction group, and oversaw construction of facilities and sport fields.

Technical Skills

Language:	R, Python, Java, C/C++, JavaScript, HTML, CSS, XML, MATLAB, Node.js, PHP
Library:	ggplot2, numpy, Theano, OpenMP, OpenCL, OpenGL, Django
DBMS:	MySQL, sqldf, MongoDB, Hadoop
Others:	Git, Caffe, AWS, Android Development, Web Development, Parallel Programming, LaTeX, Unix

Projects

Full-Stack Web Development: Website for E.Cafe at Oregon State University **01/2017 to Current**
HTML/CSS/JavaScript/JQuery/Node.js/Express.js/MongoDB/AJAX/AWS/MVC

- Developing a commercial-use dynamic website supporting user log in, food ordering and payment.
- Working with AWS EC2, installing and administering Linux distributions such as Ubuntu and CentOS.
- Creating, updating, and maintenance of MongoDB database.

House Rental Suggestion: Python/MySQL/Pybrain/Scrapy **01/2017 to 03/2017**

- Developed a Python Spider to crawl house rental information from Craigslist using Scrapy framework.
- Used MySQL to join and project data from two schemas.
- Fitted a Neural Network Model with Pybrain library, generating results with acceptable accuracy (over 71%).

CNN Deconvolution Boundary Detection: Python/C++/Caffe **01/2016 to 03/2016**

- Proposed a neural network architecture to detect boundaries in images by learning a CNN to be used as a feature detector, and deconvolved learned features to restore images with clear contours.
- Achieved stable and reliable CNN Deconvolution Boundary Detection results with over 83% accuracy.

HMM and CRF for POS Tagging: Python/ NLKT **01/2016 to 03/2016**

- Explored the HMM (Hidden Markov Model) and CRF (Conditional Random Field) with the POS Tagging problem.
- Achieved higher performance results than the CRF model.

Publications

Rebecca A. Hutchinson, Liqiang He, and Sarah C. Emerson. "Species Distribution Modeling of Citizen Science Data as a Classification Problem with Class-conditional Noise", in Proceedings of AAAI-17.