Guannan Liang

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Education

University of Connecticut — Storrs, CT, USA
Ph.D. in Computer Science, GPA 3.9 — *Jan. 2016 – May 2021*

University of California, Davis — Davis, CA, USA
M.S.in Statistics — *Sep. 2014 – Dec. 2015*

Zhengzhou University — Zhengzhou, China
B.S.in Mathematics — *Sep. 2009 – July. 2013*

Experience

Graduate Assistant at Eversource Energy Center — May 2017 – Present
University of Connecticut — *Storrs, CT*

- Implement weather forecasting (WRF 3.7, WRF 3.8 and ICLAMS systems) , flooding forecasting (CREST system) and machine learning models for power outage predictions for Eversource Energy Company (CT, MA, NH areas) and United Illuminating Company (UI) on the HPC resources at UConn.
- Propose new machine learning and deep learning methods to improve the performance of existing operational system, such as LSTM model to capture the sequence information in weather.

Research Assistant at Lab of Machine Learning & Health Informatics — Jan. 2016 – Present
University of Connecticut — *Storrs, CT*

- Develop new machine learning algorithms, such as for sparse learning problem, optimizers for deep learning applications, differential private (DP) algorithms and federated learning algorithms.
- Collaborate across labs to identify new composite traits for alcohol dependence.

Projects

Gitlytics | *Python, Flask, React, PostgreSQL, Docker* — June 2020 – Present

- Developed a full-stack web application using with Flask serving a REST API with React as the frontend
- Implemented GitHub OAuth to get data from user's repositories
- Visualized GitHub data to show collaboration
- Used Celery and Redis for asynchronous tasks

Simple Paintball | *Spigot API, Java, Maven, TravisCI, Git* — May 2018 – May 2020

- Developed a Minecraft server plugin to entertain kids during free time for a previous job
- Published plugin to websites gaining 2K+ downloads and an average 4.5/5-star review
- Implemented continuous delivery using TravisCI to build the plugin upon new a release
- Collaborated with Minecraft server administrators to suggest features and get feedback about the plugin

Technical Skills

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, R
Frameworks: React, Node.js, Flask, JUnit, WordPress, Material-UI, FastAPI
Developer Tools: Git, Docker, TravisCI, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: pandas, NumPy, Matplotlib