

EXPERIENCE

Augustus Intelligence - Engineering Lead, Infrastructure Mar. 2020 - Oct. 2020

- Management:** Managed team of 4 engineers building a self-serve infrastructure platform on Kubernetes, ArgoCD, and Circle CI
- Hiring:** Replaced team of embedded consultants with full time employees, managing knowledge transfer through high staff turnover
- Highest Technical Standards:** Led architecture guild to align multiple product teams on company wide architectural decisions
- Incident Response:** Drove company wide incident response process, reducing time to acknowledge from days to minutes

Augustus Intelligence - Software Engineer Oct. 2019 - Mar. 2020

- Technical Interviewing:** Designed and implemented technical interviewing standards used to interview over 50 candidates
- Technical Leadership:** Led proof of concept for an analytics platform for on-prem devices using Kafka, DynamoDB, and Faust
- Networking:** Redesigned cloud network using AWS Transit Gateways so that all internal traffic was kept private

Augustus Intelligence - Research Engineer May 2019 - Oct. 2019

- Federated Learning:** Developed tooling to train models on data stored on multiple machines using Kubernetes and PySyft
- Object Detection:** Improved and deployed object detection models for use with client facing systems using Pytorch and Klein

Yelp - Software Engineering Intern May 2018 - Aug. 2018

- Distributed Processing:** Migrated batch algorithm to Apache Spark, speeding it up to process 3 billion rows in under 30 minutes
- Online Machine Learning:** Deployed XGBoost model which serves over 300 queries per second on geospatial data

Pandata - Data Engineering Intern Jan. 2018 - May. 2018

- Cloud Data Storage:** Led migration of data storage for use with natural language models to Google Cloud Storage
- Client Facing:** Performed and automated adhoc data analysis to help non-technical clients with data driven decision making

OPEN SOURCE PROJECTS

OpenMined - Release Manager and Distributed Computation Project Lead Aug. 2017 - Nov. 2019

- Multiparty Computation:** Extended PyTorch to support operations on secure data using multiparty computation
- Code Quality:** Automated code quality tools to ease development and code review for an internationally distributed team
- Education:** Maintained list of relevant technologies at <https://github.com/OpenMined/private-ai-resources>

Synchrony - Case Western Reserve University Best Senior Project 2019 Aug. 2018 - Dec. 2018

- Database Design:** Designed and implemented schema for real-time music synchronization using Django and Postgresql
- Developer Tooling:** Created tooling for automated code formatting and testing to ease development on a cross functional team

EDUCATION

Case Western Reserve University - Bachelor of Science in Computer Science Aug. 2015 - Jan. 2019

- Grade Point Average:** 3.30
- Selected Relevant Courses:** Machine Learning, Advanced Algorithms, OS and Concurrent Programming, Data Privacy
- Teaching Assistant:** Algorithms

SELECTED PUBLICATIONS

A Generic Framework for Privacy Preserving Deep Learning - NIPS Privacy Preserving Machine Learning Workshop 2018
Theo Ryffel, Andrew Trask, Morten Dahl, **Bobby Wagner**, Jason Mancuso, Daniel Rueckert and Jonathan Passerat-Palmbach

INVITED TALKS

NASA Machine Learning Forum - Dealing With Other People's Data: When to use different types of PPML Mar. 25, 2019

Cleveland Artificial Intelligence Group - Introduction to OpenMined Feb. 15, 2018

Cleveland Artificial Intelligence Group - Graph Neural Networks Sep. 20, 2018