Nicholas Hobbs

Data Scientist experienced in machine learning, data engineering, and full stack development. Proficient in natural language processing, data modeling, graph databases, and cloud-based data operations for continuous integration. Particularly interested in web security, large language models, data visualization, and educational technologies

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Education

Mathematics and Statistics BS - *University of Utah* - Salt Lake City, Utah (2012-2017)

- **Coursework**: Cryptography, Number Theory, Linear Models, Stochastic Processes, Statistical Inference, Probability, Statistical Software (SAS, SPSS, MATLAB)
- **Mathematics Exchange Program** - *Hong Kong University of Science and Technology* (2013-2014)
  - **Coursework**: Linear Algebra, Statistical Methods, Intermediate Mandarin
- **Intensive Chinese Language** - *Nankai University* (2014)
  - HSK 5 level proficiency

Experience

Data Analyst, Business Intelligence - *Red Rock Brewing* - Salt Lake City, UT (2023)

- Built a data pipeline from scratch to integrate data from various sources including custom built forms, POS, inventory, and accounting systems
- Implemented custom data dashboards and forms for salespeople and delivery drivers to update inventory and record business interactions using Postgres and React
- Identified inefficiencies in disorganized processes and helped COO develop new processes for managing inventory, sales, and team members

Software Engineer - *Off Piste* - Salt Lake City, UT (2021-2022)

- Designed and built from scratch a full stack platform in Rust, web3.js, d3 and React for dated futures on digital assets
- Implemented smart contracts representing lending pool, margin account, and controller and assisted with design and implementation of customer dashboard
- Dockerized workflow and developed internal documentation to minimize friction working with remote asynchronous development team

Data Scientist - *OpenLattice* - Redwood City, CA (2019-2020)

- Built new pipeline and internal python packages for custom recurring data integrations from various legacy databases using pandas
- Addressed false positive and speed issues with deep learning data linkage model by implementing heuristic improvements from a causal modeling approach
- Created custom interactive dashboards for OpenLattice customers to view and analyze their data on cloud platform
- Worked with Backend Engineering team as an intern for my last few months in addition to Data Science role to learn software engineering principles and design custom api endpoints in Kotlin to better suit needs of customers and data scientists
- Built a custom package using python for generating demo data with complex interrelations based on real client summary statistics

Security Consultant - *Evolve Security* - Chicago, IL (2018-2019)

- Performed full scale end-to-end security audits and compliance consulting for customers including large non-profit organizations, small startups, law firms, and real estate agents
- Visited customers on-site, testing physical security, wifi (aircrack-ng), and performing social engineering assessments
- Used automated and manual tools to test online assets including nmap, nessus, and nikto
- Wrote reports on findings, presented to clients, and suggested remediations for vulnerabilities

Data Scientist - *Sorenson Impact Center* - Salt Lake City, UT (2017-2018)

- Used causalimpact package in R to model factors contributing to prison recidivism in Utah following Justice Reinvestment Initiative
- Led project for the innauguration of First Star Academy at University of Utah analyzing costs and benefits to the state of providing former foster youth who age out of state custody with college benefits
- Assisted with project analyzing early childhood education costs to Pacific Northwest families
- Helped source data and perform relevant analysis for various student-led impact investing projects

Projects

Desierto Florido - Valparaiso, Chile (2022)

- Cofounded a collective for artists and creatives to build community and make money online, rejected from Startup Chile

Ample Insight - Remote (2019)

- Worked on a framework for A/B testing and causal analysis of user interactions on large scale website using docker, redis, and postgres
- Processing data and implementing autocomplete for input box using trie to standardize employee data input to ingredients purchasing list

Nightfall AI - San Francisco, CA (2019)

- Built custom data annotation flask app to more than 10x efficiency of data annotation experts using regex and unique tagging dashboard
- Assisted Machine Learning Engineers with research and implementation of BERT to detect employees leaking secrets or using profanity on slack or github

Kleimann Communications - San Francisco, CA (2018-2019)

- Wrote custom script in VBA to parse commented .docx transcripts into easily searchable data tables for legal professionals to derive insights from expert testimony on student loans
- Built simple custom dashboard to allow for simple analyses with web interface

ILRI - Remote (2018)

- Worked on a model attempting to determine whether ground-level images taken by pastoralists could improve prediction of forage quality for a specific geographic location as opposed to purely NDVI based models using ResNet CNN architecture