**Julianna harwood**

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# Professional Experience

## Data Scientist, Los Angeles Times, Los Angeles CA July 2022 - Present

* What I do 1
* What I do 2
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## Data Scientist, Accenture, Los Angeles CA August 2019 – June 2022

I worked in Accenture’s technology innovation practice, developing quantum computing and AI prototypes to solve business problems and drive client adoption of cutting-edge technologies.

* **Truck Routing Application**
  + Created and implemented mixed integer model to optimize delivery truck routes using annealing algorithms.
  + Performed parameter tuning through grid searches to optimize the model for the algorithm, achieving valid solutions for problems 10x larger than those of previous attempts using similar approaches.
* **Portfolio Optimization Application**
  + Co-authored optimization model to reduce transaction costs of financial portfolios; submitted for patent.
  + Led the integration of the algorithm into a web app using AWS services to achieve one of the first demonstrations of Amazon Braket, AWS’s quantum computing service.
* **Radiotherapy Application**
  + Developed Python Flask app for novel approach of using quantum annealing to target cancerous tumors through intensity modulated radiotherapy methods.
  + Created data models, curated test data, and implemented AWS S3 bucket storage.
* **AI Enterprise Search Engine**
  + Scripted automated tests with Pytest to evaluate performance of custom-made, BERT-based, conversational Q&A platform, hosted on AWS.
  + Routinely summarized and communicated results to product owner and lead developer to facilitate informed decision making around iterations and improvements.

## Data Analyst, Cogo Labs, Cambridge MA June – August 2018

* Analyzed web traffic data using SQL to develop plans for online happy hour finder that reached 11,000 visits in seven weeks.
* Built a messaging bot using Python and SQL that alerts users to long running and long-standing SQL executions and deliveries to minimize data storage costs for the company.

# Education

## Wesleyan University, Middletown CT May 2019

*Bachelor of Arts*, Major: Physics, Economics; Minor: Data Analysis; Phi Betta Kappa

**Skills**

**Programming Expertise:** Python, SQL, R, STATA, Mathematica.

**Technical Expertise:** AWS Ecosystem, machine learning, statistical inference & data science, quantum information science, virtual reality.