

# JULIANNA HARWOOD

Los Angeles, CA | <https://www.linkedin.com/in/juliannaharwood/>

## Professional Experience

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**Data Scientist**, *Los Angeles Times*, Los Angeles CA

*July 2022 - Present*

- What I do 1
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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

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**Wesleyan University**, Middletown CT

*May 2019*

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

## Skills

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

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