s. shelly jang

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experience

2014-pres. Fellow Insight Data Science

- Created BeeHealthy-app.com, a web app to recommend crowd-verified treatments for common health conditions.
- Used python and BeautifulSoup to scrape thousands of health conditions, treatments and reported effectiveness from CureTogether.com, as well as PatientsLikeMe.com, storing the data in MySQL database.
- Developed a categorization method using Amazon MechanicalTurk, Amazon, Yelp & Doctoralia APIs and FDA database to provide action items corresponding to each treatment.
- Deployed an interactive web app designed using Bootstrap, Flask and jQuery on Amazon Web Services.

2009–2014 Graduate Researcher (PhD)

University of Washington

- Engineered a family of synthetic plant hormonal pathways to characterize the native functionality and the engineerability of complex synthetic networks using the pathway components.
- Developed an optimization approach that identifies a mathematical model of the network in Mathematica.
- Translated the Mathematica package to Python to promote easier collaboration.
- Organized the management of laboratory automation software by implementing the Scrum framework.

2007–2009 Graduate Researcher (MASc)

University of British Columbia

- Implemented Markov Chain Monte Carlo algorithms using MATLAB to estimate model parameters of large scale biological process with low quality data
- Simulated the range of operation of bioprocesses in industrial settings using multiple mathematical models.
- Motivated collaborative projects across departments by organizing an interdisciplinary reading group.

education

2009–2014	PhD in Electrical Engineering	University of Washington
2007–2009	MASc in Chemical & Biological Engineering	University of British Columbia
2002-2007	BS in Chemical Engineering, Minor in Math & Chemistry	University of Washington

awards

2013	Global Grand Challenges Summit Delegate	University of Washington
2012	Kenney Fellowship	University of Washington
2009	Clairmont L. Egtvedt Fellowship	University of Washington

contact

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languages

Python
JavaScript
Mathematica
MATLAB

tools

BeautifulSoup Numpy & SciPy NLTK, Scikit-Learn (some exp) MySQL, Flask, AWS

For complete CV

