

Michael Lehotay

Data Scientist and Software Quality Engineer

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Skills

- A/B testing
- Agile development
- Bayesian statistics
- Beautiful Soup
- C
- Classification
- Clustering
- Customer lifetime value
- Data analysis
- Data modeling
- Data visualization
- Data wrangling
- Decision trees
- Feature engineering
- Git
- HTML/CSS
- Java
- Jupyter Notebook
- keras
- Linear regression
- Linux
- Logistic regression
- Machine learning
- matplotlib
- Natural language processing
- Neural networks
- numpy
- pandas
- Predictive analytics
- Python
- Random forests
- Recommender systems
- Regular expressions
- scikit-learn
- SQL
- Statistical analysis
- TensorFlow
- Time series analysis
- Web scraping
- Excellent verbal and written communication skills
- Extensive experience with software testing, verification, and validation.
- Excellent reasoning ability and investigation skills
- Detail oriented with ability to learn new skills quickly

Education

IBM Data Science Professional Certificate

www.coursera.org, expected completion March 2020

Introduction to IBM Cloud, IBM Watson Studio, and IBM Data Science Methodology.

Data Science Immersive

General Assembly, Toronto, Ontario, Feb 2020

Completed 12-week data science training program covering data analysis with python, machine learning and modeling techniques, and data visualization. Created and deployed multiple interactive web applications.

B.Sc., Computer Science

University of Toronto, June 2006

Completed major program in computer science. Also studied biochemistry and linguistics. Was awarded the Woodsworth College Book Box Scholarship in Recognition of Outstanding Achievement in Mathematics.

Certified Software Quality Engineer

American Society for Quality, Dec 2016

Certified understanding of software quality development and implementation, software inspection, testing, verification and validation, and implementation of software development and maintenance processes and methods.

Employment History

Quality Engineer

IBM Watson Health, Cambridge, Massachusetts, Nov 2016 – Oct 2019

- Provided design quality assurance for the development of medical device software conforming to FDA regulations and ISO 13485, ISO 14971, and IEC 62304 standards.
- Coached multidisciplinary teams to create project development plans, design inputs and outputs, design history files, risk management, test strategy, verification and validation plans, test traceability, and other design control deliverables.
- Reviewed and approved design verification and validation test plans, protocols, and reports.
- Developed and implemented corrective actions for improvement of design control processes.
- Participated in assessment of development tools and approved tool validation documentation.

Quality Engineer

Optos Inc / Nikon Corporation, Southborough, Massachusetts, May 2015 – Nov 2016

Optos Inc, Southborough, Massachusetts, Oct 2013 – May 2015

Optos Inc, Miami, Florida, Jan 2012 – Sep 2013

OPKO Instrumentation, Miami, Florida, Aug 2010 – Jan 2012

OPKO Instrumentation, Kingston, Ontario, Nov 2007 – Jul 2010

Ophthalmic Technologies Inc, Kingston, Ontario, Mar 2006 – Nov 2007

Provided quality assurance for retinal imaging medical device over the entire course of the product lifecycle, spanning three corporate acquisitions and two manufacturing facility relocations.

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|-------------------------|-----------------------------|---------------------------|-------------------------|
| • ISO 13485 | • Document control | • Software build engineer | documentation, test |
| • IEC 62304 | • FDA & ISO audit SME | • Software release | protocols, other design |
| • ISO 14971 | • Internal auditor | management | deliverables |
| • V&V testing | • Clinical testing for 510k | • Defect management | • Provided level 3 tech |
| • Design Control | submission | • Developed SOP, work | support |
| • CAPA | • Maintained risk | instructions, other | • Server administration |
| • Complaint management | management file | quality system processes | (JIRA, subversion, etc) |
| • Nonconforming product | • Maintained technical | • Developed | |
| • Incoming inspection | file | requirements, user | |

Projects

Blog, <https://mlehotay.github.io/blog/>

Content written in Markdown and Jupyter Notebook. Static site generated with Pelican using Jinja templates. Hosted on GitHub Pages.

Broccoli Recommender, <http://broccoli.floatingeye.net/>

Fruit and vegetable recommendation engine based on cosine similarity. Flask app in a Docker container hosted on DigitalOcean. Saves user input in SQLite database to improve subsequent recommendations.

PokePredictor, <http://pokepredictor.floatingeye.net/>

Predicts the most likely pokemon based on location, time, and weather. Flask app hosted on Heroku. Team project. Logistic regression. Scraped supplemental data and images from web using BeautifulSoup and regular expressions.

Abalone Calculator, <http://abalone.floatingeye.net/>

Predicts the age of abalone based on physical measurements. Flask app hosted on Heroku. Linear regression.