RYAN KOCH

Contact

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(617) 823-9510

Certifications

Six Sigma Black Belt

Skills

PRODUCT DESIGN

Customer Intelligence
Adobe Creative Suite
Competitive Analysis
Journey Mapping
Wire-Framing
Task Analysis
Prototyping
Mock-ups
User Flow
Invision
Sketch
Figma
Miro

MACHINE LEARNING

Data Visualization
Data Exploration
Classification
Regression
Data Prep
AutoML
NLP

PROGRAMMING

Javascript
Python
SQL
C++

Awards

Outstanding Research
Fisher College Center for Leadership in Public Service; 2015

Outstanding Student
Fisher College Psychology Department; 2016

Student of the Year
Fisher College Psychology Department; 2013

Education

Tufts University — 2017 to Spring 2020
M.S. Human Factors Engineering GPA 3.67

Fisher College — 2016
B.A. Psychology Magna Cum Laude

Experience

DataRobot — Boston, MA
User Experience Lead — Sept. 2019 to Apr. 2020

- Architected persona-centric artifacts: mockups, wireframes, engineering product specs, and journey maps
- Provided research as a service to internal stakeholders to develop a self service product experience
- Conducted usability testing to evaluate and integrate newly acquired products & tools
- Developed & disseminated: customer/user analytics, interviews, competitive analyses
- Conducted user research to inform decision making and product development QOQ

Google — Oakland, CA
Applied Machine Learning Intensive Student — Feb. 2019 to May 2019

- Selected (3.5% acceptance rate) from over 600 applicants as one of a 21-person cohort to take part in a ten-week, project-based Machine Learning pilot program fully funded by Google at Mills College
- Analyzed, cleaned visual data, developed ML models, diagnosed modeling issues, adjusted input data
- Discern when machine learning is the optimal approach, ethical use of AI, and understand bias in AI
- Cultivated proficiency in SQL and Python

Nuance Communications (DRIVE) Laboratory — Cambridge, MA
User Experience Research Intern — Jan. 2017 to June 2017

- Supported conception of Design Research Innovation and in-Vehicle (DRIVE) lab now part of "Cerance"
- Augmented Natural Language Processing products centered around multi-modal in-vehicle experience
- Designed online surveys (Survey Monkey), analyzed data, & disseminated insights to senior staff

Massachusetts Institute of Technology (MIT) Lincoln Laboratory — Lexington, MA
Human Factors Research Assistant — May 2016 to Sept. 2016, July 2015 to Sept. 2015

- Heuristic evaluation to collect data complementing a usability test on law enforcement video analytic software
- Collected data: focus group & utility analysis performed on public health surveillance software
- Developed an executive summary of law enforcement best practices

Projects

Advertisement Optimization — 2019

- Developed a web application using Google Cloud Compute Engine + Flask to predict features of user engagement
- Iteratively trained and evaluated predictive classification models: SGDClassifier, Random Forest, TensorFlow Multi-layer Perceptron Neural Net
- Preprocessed and feature engineered training data using Pandas, NumPy, & Scikit-Learn

Glass Social Media — 2018

- Cross-platform mobile app designed to offer a psychologically healthy & mindful way of interacting
- UX research: 1 focus group, 20 user interviews, journey map, 5 usability tests across lo-fi and hi-fi prototypes
- Build, Measure, Learn: provided data-driven dev & design across multiple version releases
- Executed development (MEAN stack), marketing, and user testing sprints

Checked In — 2019

- Mobile app designed to promote change in the way mental health is addressed on college campuses
- Led team of 5 in developing a clickable prototype using Adobe Creative Suite (Photoshop, Illustrator, XD)
- Collected, analyzed, synthesized, reported and implemented design direction to elevate project
- 10x'd project bringing it from a conceptual pre-design state to a tangible & development ready state
- My work directly resulted in acceptance to the Harvard Innovation Laboratory: Venture Incubation Program

Publications

Koch, R. Intriligator, J. (submitted 2019). Human Factors Engineering and Machine Learning: Designing Intelligent Human-Machine Systems. Ergonomics in Design Special Issue: Machine Learning, Artificial Intelligence, and Human Factors Design.

Sanders, T. L., Kaplan, X., Schwartz, M., Koch, R., Hancock, P. A. (2017). The Relationship Between Trust and Use Choice in HRI. The Journal of Human Factors.