

# Ryan Hildebrandt

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## WORK EXPERIENCE

### TEKSYSTEMS | Google CCAI Dialogue Designer -- Contract

Jun 2021 - Present | Remote

- Identify and label errors in customer-chatbot interactions using taxonomies built based on client business needs
- Apply statistical techniques to analyze client data and present recommendations for product improvements
- Design, build, and maintain Google CCAI agents for client-specific use cases as well as NLP experiments

### CERENCE INC. | Japanese NLU Specialist -- Contract

Nov 2020 - Apr 2021 | Remote

- Extend NLU grammars used for speech recognition models with necessary labels and semantic tags.
- Analyze and correct errors in NLU machine learning model output in an accurate and timely manner.
- Localize English NLU resources into Japanese for use by a variety of global automakers, including intent classification and semantic labeling.

## RESEARCH EXPERIENCE

### EMOTION WORD PROCESSING IN A SATIATION PARADIGM | Graduate Thesis

- Study investigating how emotion word type and valence impact word processing via semantic satiation.
- R : Stimulus selection, data analysis & visualization
- Presented at Psychonomic Society 2019 Meeting, Montreal

### DETECTION & PERCEPTION OF EMOTIONAL FACES | Graduate Research Assistantship

- Research examining the categorization, detection, and rating of emotional faces as compared to other images.
- R : Stimulus selection
- Python/PschoPy : Experiment coding

### SPEECH INTELLIGIBILITY TESTING FOR NOVEL NOISE REDUCTION ALGORITHM | Graduate Researcher Position

- Project assessing noise reduction algorithms for use in microphones used by first responders.
- Praat/R : Stimulus preparation, data coding
- MTurk : Experimental coding, data collection

## SKILLS

### PROGRAMMING LANGUAGES

R • Python • SQL • Julia • MATLAB • SAS • Microsoft VBA • Google AppsScript

### DEV TOOLS & PLATFORMS

Git • Regex • Bash • Linux/Unix • Windows

### DATA ANALYSIS & STATISTICAL TECHNIQUES

Data manipulation • Data tidying • NLP (sentiment analysis, topic modeling, vectorization) • Feature engineering • Regression (linear, logistic, polynomial) • Mixed linear modeling • Structural equation modeling • (M)ANOVA • Unsupervised & supervised classification • Principal component analysis

### DATA & STATS SOFTWARE

RStudio • Spyder • SPSS • JASP • jamovi • Qualtrics • Excel • KNIME • Google Data Studio • Tableau • Amazon MTurk • MiniTab

### RESEARCH

Experimental design • Survey design • Data collection • Literature review • Data analysis • Data visualization • Research presentation • Human subjects research • IRB compliance • Scientific writing • Academic writing

## EDUCATION

RIT | MS in Experimental Psychology | Dec 2019 - Rochester, NY

Colgate University | BA in Japanese & Psychology | May 2017 - Hamilton, NY

## COURSEWORK

### STATISTICS & CODING

Statistical Software • Graduate Statistics • Regression Analysis • Advanced Graduate Statistics

R, Python, & SQL Courses • Customer Experiences with Contact Center AI - Dialogflow ES & CX Specializations (*Coursera, DataCamp, Udemy*)

### PSYCHOLOGY

Research Methods • Quantitative Methods in Behavioral Research • Applied Research Methods

## LINKS

Github Homepage: [github.com/ryancahildebrandt](https://github.com/ryancahildebrandt)

LinkedIn: [linkedin.com/in/rcah](https://www.linkedin.com/in/rcah)

ResearchGate: [researchgate.net/profile/Ryan\\_Hildebrandt](https://www.researchgate.net/profile/Ryan_Hildebrandt)