

Eric C. M. Chantland

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Experienced (6+ years) full-stack developer in human analytics. Skilled in developing intricate software for user data collection and data analysis. Quick and independent learner of software design frameworks to fit collaborators' needs. Proficient in working both as a project lead and an instrumental member of any team.

Skills

Full-stack developer specializing in cognitive assessment (using Python, JavaScript, Matlab, E-prime, and Qualtrics) ^ Quantitative and qualitative data analysis (using Python, R/Rstudio, SPSS, Matlab, and Excel) ^ Database management (MySQL, SQLite) ^ API (FastAPI) ^ Machine learning algorithms ^ development in Unix based environments ^ Unit/system/user-acceptance testing ^ Research design development.

Education

M.A. in Cognitive Psychology – Michigan State University (Spring 2022)

Thesis: Preference for Control is Consistent Across Probability and Size of Reward Outcomes.

GPA: 3.933

B.S. in Psychology – Michigan State University (December 2016)

GPA: 3.671

Projects

EEGExtract – A python library for extracting features from Electroencephalography (EEG) data. Actively maintained and used by several researchers worldwide.

Dice Me – Convert image to a dice mosaic using scikit-learn to determine optimal feature preservation.

FastAPI-Dice-App – Integrating an API using the Dice_Me project. Uses a relational database (SQLite), API (FastAPI), Python, JavaScript, CSS, and HTML.

CVT Logistic Analysis – MATLAB library implementing per-subject binary logistical regression analysis.

Relevant Certifications

[Javascript Algorithms and Data Structures](#) (July 2022)

FreeCodeCamp

Web Design for Everybody Specialization (ongoing)

Coursera – University of Michigan

[Introduction to HTML5](#)

[Introduction to CSS](#)

[Interactivity with JavaScript](#)

[Advanced Styling and Responsive Design](#)

[Python for Everybody Specialization](#) (June 2022)

Coursera - University of Michigan

[Programming for Everybody](#)

[Python Data Structures](#)

[Using Python to Access Web Data](#)

[Using Databases with Python](#)

[Capstone](#)

[Data Analysis with Python](#) (April 2022)

FreeCodeCamp

[Scientific Computing with Python](#) (Feb 2022)

FreeCodeCamp

Experience

Graduate Research Assistant – Michigan State University

August 2018 – May 2022 Cognitive Control Neurolab, Principal Investigator: Susan Ravizza.

August 2018 – May 2022 Neuroimaging of Perception and Attention Lab, Principal Investigator: Taosheng Liu

- Built and deployed research experiments via Python, JavaScript, Matlab, E-Prime, and Qualtrics which allowed for testing research questions on demographics both within and outside the greater Lansing area.
- Problem solved and methodically troubleshooted experiment-based software to manage user misconceptions and operating errors.
- Recorded then analyzed data to discover trends via Python (Numpy, Pandas, Scikit-learn), R/Rstudio, SPSS, Matlab, EEGLAB, and Excel.
- Managed large data sets, prepared data assessments, and presented summarized data analytics at collaborator meetings, thereby aiding in clarity and recommending changes to projects' design.
- Served as team leader for groups of up to 8 undergraduate research assistants in recruiting participants, facilitating experiments, and recording clean data.

Graduate Teaching Assistant – Michigan State University

August 2018 – May 2022

- Tutored, lectured, graded, and created coursework for classes of 30 to 500 people.
- Guest lectured on complex methods of testing attentional templates by summarizing and effectively simplifying concepts for a predominately novice audience.

Research Manager – Michigan State University

August 2017 – August 2018 Neuroimaging of Perception and Attention Lab, Principal Investigator: Taosheng Liu

January 2017 – August 2018 Attention and Perception Lab, Principal Investigator: Mark Becker

- Programmed 10+ experiment software via Matlab and E-Prime to match with principal investigators' current needs then coordinated researcher assistants to acquire data promptly.
- Assisted in the conception and development of 15+ experiments devised by the principal investigator and graduate students.
- Concurrently managed multiple research laboratories of up to 8-person teams of researchers. Trained researchers in experiment design where at least 2 researchers created their own studies under my and the principal investigator's guidance.
- Analyzed and assessed data via SPSS, Excel, and Matlab then distributed technical reports at meetings.

Undergraduate and Post-Bachelors Research Assistant – Michigan State University

January 2017 – August 2017 Neuroimaging of Perception and Attention Lab, Principal Investigator: Taosheng Liu

August 2016 – January 2017 Attention and Perception Lab, Principal Investigator: Mark Becker

August 2016 – May 2017 Twin Registry, Principal Investigator: Alexandra Burt

August 2015 – May 2016 Morality Intergroup Relations Lab, Principal Investigator: Carlos Navarrete

- Aided in recording qualitative and quantitative data such as emotional responses, psychomotor data, behavioral accuracy, and reaction time.
- Independently conceived, programmed, and analyzed (SPSS and Excel) novel research on motivated target search detection including 3 total experiments of more than 120 subjects each.