Stephanie Tulk
314-304-3410
stulk@gmu.edu

Education

George Mason University current
Ph.D. in Human Factors and Applied Cognition, Psychology Program. GPA: 3.7 projected: 2019
M.A. in Human Factors Psychology. GPA: 3.7 2016

Michigan Technological University 2012
B.S. in Civil Engineering. GPA: 3.4
International Sustainable Development Engineering Certificate

Research Experience

Studying Human-Agent Interactions with EEG and Behavior using Video Games current

- Designed a study involving cooperative/competitive interactions between human and artificial agents
- Modified a multiplayer survival style video game (Don't Starve Together by Klei Entertainment)
- Fine tuning the user experience and data acquisition system to optimize experimental validity
- Examining individual differences with surveys and implicit cognitive measures
- Learning advanced and novel techniques to analyze EEG data

Programming Social Robots/Artificial Agents 2014-current

- Maintaining and modifying python code a humanoid robot head (Meka Robotics, named "Miyoko")
- Modifying python code for the Cozmo robot for psychological experiments
- Managing and working with a research assistant to engineer effective solutions to nuanced problems
- Figuring out ways to expand the functionality of an outdated and problematic platform
- Developing Human-Robot/Human-Agent Interaction studies
- Researching and implementing solutions created by an open source community
- Configuring Ubuntu, RTAI kernel patch, ROS and other platform specific systems

Observing Differences in Trust and Performance with Artificial Agents 2014-current

- Regularly obtaining/maintaining permissions from Institutional Review Board
- Training research assistants to run experiments, review literature and program in python
- Developing and running studies involving: social robotics and virtual agents through game theory/behavior economic and implicit social cognitive paradigms
- Cleaning and analyzing data (R and SPSS)
- Developing and running behavioral studies online
- Learning and using video game making tools (GameMaker and Love2D) to develop simple video games for human-computer interaction research
- Modifying and developing artificially intelligent agents to study social perception and cognition, anthropomorphism, and performance
- Researching artificial intelligence, cognitive models, learning and genetic algorithms in order to produce observable/interactive behaviors to further current research

Creating a Citizen Science Server current

- Using insights gained from past projects to design new experiments that can be run online
- Utilizing "Citizen Science" techniques in order to encourage public participation in exchange for entertainment and communal goodwill
- Learning Lua, Apache and MySQL in order to construct a server for experimental games in order to reach a larger participation base and gain more control over data collection

Stephanie Tulk
314-304-3410
stulk@gmu.edu

Teaching Experience

Mystery, Madness and Murder Fall 2016

A course of my own design, investigating the evolution of human intelligence, myths, metaphysics, game theory, the internet as a conscious entity and the future of humanity

Cognitive Psychology Spring/Summer 2016

An intermediate level undergraduate course covering the basics of cognitive science and its history with psychology

Social Psychology Fall 2015

Designed an intermediate level undergraduate course in social psychology, including history, compelling findings and importance in daily life

Psychological Research Methods: Lab Fall 2014

Taught a lab section of a course on psychological research methods. My section included running mock psychological experiments, including data acquisition, introduction to statistical analysis and writing publishable scientific papers

Work Experience

Citizen's Computational Social Justice Project current

Developing a Citizen Science Platform to Create Semantic Network and Combat Political Corruption

- Developing a gamified data collection interface to build a semantic network through crowd-sourcing
- Manage a team of 5
- Developing a crowdfunding campaign to fund project

INOVA Hospital Time Study: Freelance 2016

Developed an Application for Data Collection for a Time Study of Nursing Work Tasks

- Worked with an INOVA employee to develop abstract concepts for user interface and data output
- Programmed app in Lua using app development software (Corona SDK)

Jeff Fernandez Associates: Intern 2015

Collect and Process Data for a Time Study

- Conducted a time study on the process of manufacturing military drones

MUSES Survey: Great Lakes Project Research Assistant 2011-12

Component of an NSF funded project studying the economic valuation of water in the Great Lakes region

- Managed a database of all water price and usage data within the Great Lakes region
- Contacted water purveyors to improve usability of a survey with a poor response rate

IDesign: International Senior Design Project 2011

Designed sanitation and operation improvements for a gravity-fed water distribution system for US Peace Corps and community in Panama

- Worked on a team of 4 including a civil and environmental engineer and a construction manager
- Collected data and assessed project on site in Panama
- Designed technologically appropriate and sustainable system improvements

MSA Professional Services, Inc.: Student Co-op 2010

Created 2010 Wisconsin Sewer User Charge Survey

- Obtained sewer/water rate data from over 500 WI municipalities to analyze statewide trends and researched additional consumer data in order to write a comprehensive report
- Communicated with Wisconsin government officials for data collection and to aid in public works
- Participated in office sustainability initiatives and worked on public outreach program on water mercury reduction

Stephanie Tulk
314-304-3410
stulk@gmu.edu

Engineers Without Borders-Michigan Tech: Guatemala Project 2009-12
Potable water and clean cooking technology in rural communities
- Developed designs for sustainable products for two rural villages, including: hand pumps, sanitary wells, corn grinders, clean cooking stoves, and sugar cane presses
- Designed and tested engineering solutions, including 30m hand pumps and protected spring boxes
- Collected land survey data and water quality data in Guatemala
- Helped write grant successfully funded at $10,000 by Boeing in 2011

ESL and Writing Tutor
Michigan Tech Writing Center: Writing Coach *2009-11*
Freelance ESL and graduate school coursework *2003-14*

Extracurricular Volunteer

Human Factors and Ergonomics Society (HFES)- George Mason: Treasurer 2015-16
HFES: First Year Liaison 2014-15
HFES: Usabilathon Event Coordinator and Documentary Director/Producer 2015
Engineers Without Borders (EWB)- Michigan Tech: Organization President 2010-11
D8o (Development for the 8o Poorest Percent of Humanity) Conference Coordinator 2011
EWB: Public Outreach officer 2009-10

Publications/Presentations

Economic Games with Humans and Social Robots 2016
Cognitive Neuroscience Society Conference-Poster Presentation

Effects of Perspective Taking on Implicit Attitudes and Performance in Economic Games 2015
International Conference on Social Robotics-Proceedings Publication

Center for Water and Society: World Water Day Poster Competition 2012
The Importance of Hydrologic Management Near Alpine Glaciers: 3rd place

Engineers Without Borders Conference 2011
Panel Discussion

Engineers Without Borders Conference 2011
Project Expectations and Limitations

Technical Skills

- Microsoft Suite
- Adobe Suite
- SPSS
- R
- PsychoPy
- Love2D
- Qualtrics/QRTEngine
- Python
- Lua
- C/C++
- Java
- Matlab
- GameMaker
- Corona SDK
- Linux/Unix
- Javascript
- HTML
- Hardware configuration