

# JENNIFER ROSE HILL

Newly-minted Computer Science Ph.D. with a passion for making usable, useful, innovative software

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## WORK EXPERIENCE

### Graduate Student Researcher

#### The George Washington University

📅 May 2013 – January 2018    📍 School of Engineering and Applied Science

- Founded the Learning Technologies Research (LeTR) group and served as its lead researcher
- Served as lead designer, researcher, programmer, and manager of the CAPITAL and REMind projects
- Managed 1-5 undergraduate students per semester
- Wrote and published two academic papers as primary author; presented at three conferences

### Intern: Data Management Center

#### The George Washington University

📅 September 2017 – January 2018    📍 Business Intelligence Office

- Made significant user interface modifications to the Data Management Center's internal tool to improve usability
- Helped build missing features of internal tool by leveraging RESTful APIs to help move product closer to production

### Undergraduate Researcher

#### National Institute of Standards and Technology

📅 May 2011 – August 2011    📍 Information Technology Lab

- Created a graphical tool for human judges to evaluate the quality of machine translations from the OpenMT Evaluation series

## PROJECTS

### CAPITAL: Comprehension and Pronunciation Instructional Tools for Adult Learners

#### Creator/developer/manager

📅 May 2013 – present

CAPITAL tackles the adult literacy problem through automatic generation of alphabetic and reading comprehension materials. CAPITAL provides an integrated system of instructor-guided, algorithmically-produced learning materials to augment literacy instruction for adults in basic education programs.

### REMind: Recurring Exercises for the Mind

#### Creator/developer/manager

📅 June 2015 – present

REMind is a learning management system that optimizes the rate and frequency at which students are exposed to materials. The system provides tools for institutions to create, organize, and deploy exercises of many different forms, and to track student performance.

### MetroHero

#### Co-founder/UX consultant

📅 September 2015 – present

MetroHero is an Android app for the DC Metrorail that uniquely visualizes train movements in real time using data from WMATA's official APIs and a suite of proprietary refining algorithms.

## EDUCATION

### Doctor of Philosophy - Computer Science

#### The George Washington University

📅 August 2012 - January 2018

Areas of Focus: User Experience, Educational Technology, Adult Literacy, Human-Computer Interaction

### Bachelor of Science - Computer Science

#### Hood College

📅 August 2008 – May 2012

## STRENGTHS

Hard-working

Detail-oriented

Multitasker

User Experience design

Academic writing

Editing

Public speaking

Presentations

Java

Python

MySQL

Javascript/jQuery

AngularJS

HTML/CSS

LaTeX

## AWARDS



### 2nd Place: SEAS Research & Development Showcase

2016, Theoretical Research Category



### Provost's Graduate Research Fellowship recipient

2012-2017

## PUBLICATIONS

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### Doctoral Thesis

- Hill, Jennifer (2018). “Algorithmic Generation and Mobile Distribution of Phonetic, Orthographic, and Inference-Based Literacy Exercises for Adult Learners”. PhD thesis. The George Washington University.

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### Journal Articles

- Hill, Jennifer, W. Randolph Ford, and Ingrid G. Farreras (2015). “Real conversations with artificial intelligence: A comparison between human–human online conversations and human–chatbot conversations”. In: *Computers in Human Behavior* 49, pp. 245–250.

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### Conference Proceedings

- Hill, Jennifer and Rahul Simha (2016a). “Automatic Generation of Context-Based Fill-in-the-Blank Exercises Using Co-occurrence Likelihoods and Google n-grams”. In: *Proceedings of the 11th Workshop on Innovative Use of NLP for Building Educational Applications*, pp. 23–30.
- – (2016b). “Designing a Literacy-Based Mobile Application for Adult Learners”. In: *Proceedings of the 34th Annual ACM Conference on Human Factors in Computing Systems*, pp. 3076–3083.

## ACADEMIC ADVISOR

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**Prof. Rahul Simha**

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