# GREGORY AIST, Ph.D.

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### **PROFILE**

edicated and accomplished expert in field of natural language processing and computer-assisted learning. Broad technology and language skills, including interaction design, programming, grammar/lexicon development, and user experience enhancement. Perform well in academic, government, and industry settings. Record of assessing customer needs and generating innovative technical solutions to real-world problems. Earned numerous awards and honors. Effective leader, adept at managing, mentoring, and motivating teams. Ph.D. from Carnegie Mellon University.

### AREAS OF EXPERTISE

Voice Recognition ◆ Educational Technology ◆ Speech Recognition ◆ Interaction Design ◆ Navigation
Astronaut & Pilot Training ◆ Learning Technology ◆ Applied Linguistics ◆ Literacy & Composition
Human-computer Interaction (HCI) ◆ Computer Science ◆ Natural Language Processing (NLP)
Computer-assisted Learning ◆ Artificial Intelligence (AI) ◆ Computational Linguistics ◆ Deep Learning

## PROFESSIONAL EXPERIENCE

### **TELENAV**

Head of Global Speech Technology (Nov 2015 - present)

Leader of speech team responsible for voice dialog in the car and audio guidance in 20+ languages worldwide. Mentor junior team members and provide overall architecture and technical guidance. Company transitioned during this period from mobile phone navigation to automotive navigation.

Principal Speech Engineer / Technical Product Owner (Mar 2014 - Nov 2015)

Senior Staff Software Engineer / Acting Product Manager (Sep 2013 - Mar 2014)

Staff Software Engineer (Dec 2011 - Aug 2013)

Software engineering, design, and architecture for R&D in speech recognition and natural language understanding for navigation and local search on mobile phones.

### **IOWA STATE UNIVERSITY**

Assistant Professor, Applied Linguistics and Communication Studies (2009 - 2011)

Faculty Member, Human-Computer Interaction Program (2010 - 2011)

Perform research and teach students in areas of communication studies, applied linguistics, and human-computer interaction. Develop LADL (Learning Activity Description Language) to facilitate process of designing activities to improve learning of new languages. Create computational tools to automatically analyze human language for social and cultural aspects of language use.

### CARNEGIE MELLON UNIVERSITY

Visiting Research Faculty, Language Technologies Institute (2008 - 2011)

Conduct research and development on software using speech recognition to facilitate instruction of children to read. Devise innovative methods to allow more open-ended voice recognition for children.

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## PROFESSIONAL EXPERIENCE (CONTINUED)

### ARIZONA STATE UNIVERSITY

Assistant Research Professor, Computer Science and Engineering (2006 - 2009)

Faculty Member, Applied Linguistics Program (2007 – 2009)

Performed research and instructed students in areas of natural language processing and computer science education. Research on pilot training in conjunction with Air Force Research Laboratory.

### UNIVERSITY OF ROCHESTER

Research Associate, Computer Science Department (2003 - 2006)

Contributed to research and development in natural language processing and dialogue systems. Developed methods and corpora for research in human-computer interaction and psycholinguistics.

## RESEARCH INSTITUTE FOR ADVANCED COMPUTER SCIENCE,

NASA AMES RESEARCH CENTER

Research Scientist (2001 - 2003)

Aided research and development in dialogue systems for astronaut training and human spaceflight. Founded Clarissa project (voice-activated procedure assistant) for astronaut training and built several initial prototypes. Clarissa is recognized as first dialogue system in space.

## VISITS & INTERNSHIPS

Air Force Summer Faculty Fellowship, Knowledge-based needs assessment and performance measurement research in simulation-based environments, US Air Force (2007, renewed 2008) Institute for Human and Machine Cognition (5/2006 - 7/2006)

Macquarie University (8/1998 - 12/1998)

Microsoft Research (1/1998 - 2/1998)

Cornell University (6/1995 - 8/1995)

NCR (5/1990 - 8/1991)

## **EDUCATION**

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Visiting Scientist: MIT Media Lab (2001 - 2002)

## **CARNEGIE MELLON UNIVERSITY**

**Postdoctoral Fellow**: Robotics Institute (2001)

**Doctor of Philosophy**: Language and Information Technologies (2000)

Ph.D. Dissertation: Developed one of first computer-assisted learning systems to perform comparably to

one-on-one human tutoring, for vocabulary learning for third graders.

Master of Science: Computational Linguistics (1997)

#### **MESSIAH COLLEGE**

Bachelor of Arts: Computer Science and Mathematics, Minor in Biology (1995)

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## **HIGHLIGHTS OF AWARDS & HONORS**

Wakonse Fellowship, Wakonse Arizona (2008)

Air Force Summer Faculty Fellowship (2007 and 2008)

Allen Newell Medal for Research Excellence, Carnegie Mellon School of Computer Science (2003)

Fulbright Scholar Award, awarded, not taken (2002)

NSF Graduate Fellowship (1996 - 2001)

## **COMPUTER SKILLS**

Languages: Python, Perl, Java, Prolog, C, C++, XML, HTML, CSS, and SQL

**Software:** Microsoft Excel, Word, PowerPoint; SPSS, statistics, various databases

**Operating Systems:** OSX, Windows, and UNIX (including Linux)

## **A**FFILIATIONS

International Speech Communication Association

Computer Assisted Language Instruction Consortium

Linguistic Society of America

Association for the Advancement of Artificial Intelligence

Cognitive Science Society

Association for Computational Linguistics

Co-founder of the journal Dialogue & Discourse

#### ADDITIONAL ACHIEVEMENTS

Dozens of publications and national and international presentations Addendum with list of presentations and publications gladly provided upon request