# Kurt Gimbel

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**EMPLOYMENT HISTORY**

2016-present — Graduate Research Assistant
CyberInfrastructure & Geospatial Information Laboratory
University of Illinois at Urbana-Champaign, Urbana, Illinois

- Continued the maintenance and development of the Resource Management Mapping Service project
- Acted on issues and suggestions from contacts at the Illinois Environmental Protection Agency
- Assisted with other projects related to large geospatial datasets under development within the group

2009-2014 — Test Engineer
Wolfram Research, Champaign, Illinois

- Became one of only a few in the company that understand the entirety of the process for initially activating the Mathematica software system
- Led the final testing efforts before products were released, insuring that the information and files that customers see are truly the versions intended
- Also continued all duties from previous years

2005-2009 — Test Engineer
Wolfram Research, Champaign, Illinois

- Created a new testing system for the graphics and rendering parts of Mathematica
- Automatically compared image captures to other image captures of the same content that had been previously stored in a database

2001-2005 — Test Engineer
Wolfram Research, Champaign, Illinois

- Became the first dedicated full-time tester for the user interface portion of Mathematica
- Significantly rewrote the existing system used for testing since it had not received recent maintenance and care and had become difficult to understand
- After the rewrite, determined that the improved system would still not handle the new types of testing being asked of it

2000-2001 Programmer
Beckman Institute, Neuronal Pattern Analysis Group
University of Illinois at Urbana-Champaign, Urbana, Illinois
- Assisted with research involving the collection of neural signals directly from the brains of live rabbits
- Created a Java based browser to navigate slices of the 3D volume of a rabbit brain
- Distributed the browser to researchers in other labs

1998-1999 Programmer
Visual Interface Incorporated, Pittsburgh, Pennsylvania
- Assisted with development of a software system for constructing surfaces in 3D, especially faces and parts of the body, from a set of 2D images
- Created a wrapper around the existing product that allowed interaction through Visual Basic
- Developed with the goal of providing a toolkit to others interested in this sort of functionality

1997-1998 Programmer
Beckman Institute, Neuronal Pattern Analysis Group
University of Illinois at Urbana-Champaign, Urbana, Illinois
- Assisted with research involving the collection of neural signals directly from the brains of live rabbits
- Assisted in reconstructing images of slices of a rabbit brain into a single 3D volume
- Verified that the resulting volume met requirements

1996-1997 Programmer
Department of General Engineering
University of Illinois at Urbana-Champaign, Urbana, Illinois
- Assisted with research into simulation and planning of processes that require resource allocation
- Maintained database systems
- Assisted with presentations

1995-1996 Programmer
Beckman Institute, Knowledge Based Systems Group
University of Illinois at Urbana-Champaign, Urbana, Illinois
- Assisted with research and simulation of fire suppression systems on naval ships
- Verified the connectivity of simulated compartments
- Verified the connectivity of simulated water pipes

**EDUCATION**

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| 2014-present | University of Illinois at Urbana-Champaign, Urbana, IL<br>- PhD student in the Department of Nuclear, Plasma and Radiological Engineering<br>- Expected completion in Spring 2021 |
| 1993-1997 | University of Illinois at Urbana-Champaign, Urbana, IL<br>- BS, Computer Science, with honors<br>- Member of Tau Beta Pi Engineering Honor Society |
| 1990-1993 | Illinois Mathematics and Science Academy, Aurora, IL |

## PROFESSIONAL QUALIFICATIONS

Python, Mathematica, Perl, Java, JavaScript, C#, C++, MySQL, ArcGIS, Linux, OSX, Windows

## PUBLICATIONS

Wilkins, D. C., Schultz, K., Daniels, M., Carbonari, R., Shou, G., Spillner, B., Gimbel, K., Bulitko, V., Schultz, K., and Bulitko, V. V. 2001. *Knowledge Ontology Structures for DC-Train 4.0*. Knowledge Systems Lab Report UIUC-BI-KBS-2001-26. Beckman Institute, University of Illinois, Urbana-Champaign

Daniels, M., Carbonari, R., Shou, G., Spillner, B., Gimbel, K., Bulitko, V., Schultz, K., and Wilkins, D. C. 2000. *The DC-SCS Supervisory Control Systems for Ship Damage Control: Volume 5 - Knowledge Ontology*. Knowledge Systems Lab Report UIUC-BI-KBS-2000-07. Beckman Institute, University of Illinois, Urbana-Champaign

Payne, J., Hanlon, J., Cantey, J., Mungnirun, K., Duvel, A., Smith, D., Gimbel, K., Nelson, M., & Gabriel, M. (1999). High-resolution digital brain atlases for behavioral neuroscience. *Society for Neuroscience Abstracts*, **25**, 877. http://itg.beckman.illinois.edu/communications/iotw/1999-10-28/original.jpg