

# Titus deLaFayette Winters

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## Education

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[University of California, Riverside](#) 2002–2006  
PhD in Computer Science

[University of California, Riverside](#) 2002-2004  
MS in Computer Science

[Harvey Mudd College](#) 1998-2002  
BS with Distinction, Honors in Computer Science

## Teaching

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**UC Riverside**, Associate In (Lecturer) Summer 2003 – Spring 2006

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|------------------|---------|---|
| Wi06             | CS 179k | Senior Design Project in Software Engineering |
| Fa05, Wi05, Sp06 | CS 153  | Design of Operating Systems                   |
| Su05, Su04       | CS 141  | Intermediate Data Structures & Algorithms     |
| Su05, Su04, Su03 | CS 14   | Introduction to Data Structures & Algorithms  |
| Sp04             | CS 164  | Computer Networks                             |

**UC Riverside**, Head TA Spring 2003 – Winter 2004

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| Sp03       | CS 12 | Introduction to Computer Science II          |
| Wi04, Fa04 | CS 14 | Introduction to Data Structures & Algorithms |

**UC Riverside**, TA Fall 2002 – Summer 2003

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|------------|--------|-------------------------------------|
| Su03       | CS 12  | Introduction to Computer Science II |
| Su03, Wi03 | CS 10  | Introduction to Computer Science I  |
| Fa02       | CS 164 | Computer Networks                   |

**Harvey Mudd College**, Laboratory Assistant Spring 2002

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|      |        |                   |
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| Sp02 | CS 125 | Computer Networks |
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**Harvey Mudd College**, Student Teacher Spring 2002

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| Sp02 |  | Storytelling |
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## Publications

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- Winters, T., Shelton, C., Payne, T. (2007). [Investigating Generative Factors of Score Matrices](#) 13th International Conference on Artificial Intelligence in Education (AIED07), Los Angeles, CA.
- Spacco, J., Winters, T., Payne, T. (2006). [Inferring Use Cases from Unit Testing](#) AAAI-06 Workshop: Educational Data Mining.
- Winters, T., Payne, T. (2006). [Computer Aided Grading with Agar](#). FECS 2006.
- Winters, T., Payne, T. (2006). [Closing the Loop on Test Creation: A Question Assessment Mechanism for Instructors](#). ACM SIGCSE Symposium 2006, Houston, Texas.
- Winters, T. et. al. (2006) [TinkerNet: A Low-Cost and Ready-to-Deploy Networking Laboratory Platform](#). Eighth Australasian Computing Education Conference (ACE2006), Hobart, Tasmania, Australia.
- Winters, T., Payne, T. (2005) [What Do Students Know: An Outcomes-Based Assessment System](#). First International Computing Education Research Workshop (ICER 05), Seattle, Washington.
- Winters, T., Shelton, C., Payne, T., Mei, G. (2005) [Topic Extraction from Item-Level Grades](#). AAAI-05 Workshop: Educational Data Mining.
- Winters, T. [Analysis, Design, Development, and Deployment of a Generalized Framework for Computer-Aided Assessment](#). Masters Thesis, Department of Computer Science, University of California, Riverside, June 2004.
- Erlinger, M., Molle, M., Winters, T., Lundberg, C., Shea, R. (2004). [TinkerNet: A Low-Cost Networking Laboratory](#). ACE2004, Dunedin, New Zealand.

## Honors & Awards

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| UCR CS&E Department Outstanding Teaching Assistant Award                          | 2003 |
| HMC CS Class of '94 Award for Outstanding Course Work, Research, and Service.     | 2002 |
| Harvey Mudd College CS Department Honors  | 2002 |
| ACM ICPC Southern California Regional - 4th Place                                 | 2001 |
| Harvey Mudd College Computer Science Clinic Award                                 | 2000 |
| Dean's List, Harvey Mudd College (Fall 1999, Spring 1999, Fall 2000, Spring 2001) |      |
| National Merit Scholar  | 1998 |

## Grants & Funding

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- **National Science Foundation** NSF-DUE-0443012  
TinkerNet: A Low-Cost Networking Laboratory System  
PI: [Dr. Mike Erlinger](#).  
Consultant for undergraduate team preparing TinkerNet for national distribution.

## Conference Activities

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- Program Committee: [Workshop on Data Mining for User Modeling](#) 11th International Conference on User Modeling (UM 2007), Corfu Greece.
- Special Session Co-organizer: [It Seemed Like a Good Idea at the Time](#) SIGCSE 2007. Covington, KY.
- Poster: *Computer Aided Assessment with Human Oversight*. ITiCSE 2006. Bologna, Italy.
- Winters, T. [Topic Grouping of Questions](#) SIGCSE Doctoral Consortium 2006. Houston, TX.
- Winters, T. [What Do Students Know?](#) SIGCSE Doctoral Consortium 2005. St. Louis, MO.
- Winters, T. [The Archive](#). SIGCSE Doctoral Consortium 2004. Norfolk, VA.

## Research Experience

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- *The Archive* - [UCR](#), Spring 2003 - Spring 2006  
Developed tools for data gathering and educational data mining techniques for discovering information on what students are learning.  
**Supervisor:** Dr. Tom Payne [thp@cs.ucr.edu](mailto:thp@cs.ucr.edu)
- *TinkerNet* - [HMC](#), Fall 2001 - Present  
Developed a laboratory environment for teaching computer networks from the link-layer to up to the application layer.  
**Supervisor:** Dr. Mike Erlinger [mike@cs.hmc.edu](mailto:mike@cs.hmc.edu)
- *The Dragon Intrusion Deflection System* - [Aerospace Corporation](#) - Summer 2000 - Fall 2002  
Developed a prototype “Intrusion Deflection System” capable of transparently redirecting an attacker to a honeypot while preserving as much of his existing connection state as possible. Supervised development on this project as leader of a 3 person research team.  
**Supervisors:** Ranwa Haddad [haddad@aero.org](mailto:haddad@aero.org), Charlie Lavine [lavine@aero.org](mailto:lavine@aero.org)
- *Tree-Based Statistical Algorithms* - [HMC](#), Fall 2000 - Spring 2002  
Implemented and refined experimental algorithms for the development of Decision Trees. My team’s work focused on implementation of a Genetic Algorithm and a K-Step Look-ahead (greedy) algorithm for generating such structures.  
**Supervisor:** Dr. Elizabeth ‘Z’ Sweedyk [z@cs.hmc.edu](mailto:z@cs.hmc.edu)
- *Melli* - [The Aerospace Corporation](#) - Summer 1999 - Summer 2000  
Demonstrated weaknesses in commonly available commercial Honeypot systems, and developed a Linux-based honeypot capable of keystroke logging, process hiding, and file protection.  
**Supervisor:** Ranwa Haddad [haddad@aero.org](mailto:haddad@aero.org)

## Industry Experience

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- *Technical Lead (July 2006 - Present)*  
Tech lead and software engineer at JetHead Development, primarily developing Linux-based set-top boxes for satellite television systems.
- *Associate Member of Technical Staff (May 2000 - December 2002)*  
Research and support tasks for the Trusted Systems Laboratory in the Aerospace Corporation including security evaluation of commercial products, development of host-level security systems, and custom-kernel routers for exotic network security paradigms.
- *CS Department Student Staff (November 1999 - May 2002)*  
General system administration / maintenance on the HMC CS Department cluster, including working with Apache, Sendmail, X11R6, and various scripting tasks.

## Service Activities

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- *UCR CE Freshman Programming Seminar & Contest '05* - Organized an introductory programming seminar and contest for incoming Computer Engineering majors using Jython.
- *Riverside Unified School District Science Fair Judge, 2005.*
- *UCR CS ACM Programming Contest Coach* - Fall 2004 - Spring 2006. Organizer and coach for UCR's teams for the International Collegiate Programming Contest. Information available at <http://www.cs.ucr.edu/~titus/acmProblems/>
- *UCR CS Technical Seminar Series* - Organizer and one of the prime presenters at the Technical Seminar Series. Information can be found at <http://www.cs.ucr.edu/~titus/techsem.html>
- *College of Engineering Accreditation Committee* - Summer 2003 - Spring 2006. Served as a Computer Science representative on the college committee on accreditation.

## References

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- Ben Payne, JetHead Development.  
*bpayne@jetheaddev.com*
- Dr. Tom Payne, Computer Science & Engineering Department, UC Riverside.  
*thp@cs.ucr.edu*
- Dr. Christian Shelton, Computer Science & Engineering Department, UC Riverside.  
*cshelton@cs.ucr.edu*
- Dr. Mart Molle, Computer Science & Engineering Department, UC Riverside.  
*mart@cs.ucr.edu*
- Dr. Mike Erlinger, Computer Science Department Harvey Mudd College.  
*mike@cs.hmc.edu*