

SNEHA POPLEY

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SUMMARY Research Interests in Programming Languages include functional programming, logic programming, logical frameworks, type theory, higher-order abstract syntax, and theorem proving. Involved in research since freshman year of undergraduate studies. Experience with Coq, SASyLF, Twelf, ML, OCaml, Java, C/C++, Ruby, Unix, and Windows.

EDUCATION **Texas Christian University** **Fort Worth, Texas**
Bachelor of Science, Computer Science & Bachelor of Arts, Mathematics May 2010
 Expected Graduation with Department Honors
 Overall GPA – **3.9/4.0**

POSTERS AND PAPERS

- S. Popley, A. Sanchez**, “Integration of Texture and Shape algorithms with Face Recognition using Eigenvectors”, *TCU Student Research Symposium*, April 2009.
S. Popley, A. Sanchez, “Shape-Based Face Detection in Images”, *TCU Student Research Symposium*, April 2008.

IN PROGRESS

S.Popley, J. Aldrich, “Formalization of SASyLF in M_2^+ ”

EXPERIENCE

Research Intern **2009–Present**
Institute for Software Research (Carnegie Mellon University) **Pittsburgh, PA**

- Working with Dr. Jonathan Aldrich and Robert Simmons to formalize SASyLF, an LF-based proof assistant, in LF using M_2^+
- Creating a SASyLF Core Calculus that syntactically resembles M_2^+ but semantically resembles SASyLF as a part of the formalization process
- Presented research to the POP and PLAID research groups at Carnegie Mellon

Research Assistant **Summer 2008**
Programming Languages Department (University of Pennsylvania) **Philadelphia, PA**

- Paired with Dr. Stephanie Weirich through the Computing Research Association-Distributed Research Experience for Undergraduates (CRA-DREU)
- Implemented Binary Search Tree algorithms in Coq to analyze the properties of dependent types in programming languages
- Presented results to graduate students and professors in the Programming Languages Department

Research Assistant **2007–Present**
Crescent Lab for Intelligent Systems (TCU Computer Science Dept.) **Fort Worth, TX**

- Involved in the Crescent Lab as a Research Assistant since freshman year
- Collaborate with Dr. Antonio Sanchez on Image Recognition and Face Detection
- Represent Crescent Lab at the Annual Student Research Symposium

Tutor **2007–Present**
TCU Computer Science Dept. **Fort Worth, TX**

- Assist students with their Java programs at the helpdesk 2-3 times a week
- Aid students in their development from “Hello World” programs to implementing control structures, collection classes, listeners, and classes

HONORS AND AWARDS

- Google Anita Borg Memorial Scholarship Finalist 2009
- Earned Dan Drew Scholarship from Upsilon Pi Epsilon national honor society for computing sciences 2009
- Awarded \$750 grant from TCU for Image Recognition Research 2007
- Pi Mu Epsilon National Mathematics Honor Society 2008–Present
- Upsilon Pi Epsilon National Honor Society for Computing Sciences, *President* 2009–Present
- Mortar Board National College Senior Honor Society 2008–Present
- TCU Honors Program 2006–Present
- TCU Scholar 2006–2008, 2009–Present
- TCU Dean’s List 2006–Present
- TCU Provost’s Scholarship 2006–Present

INVOLVEMENTS AND SERVICE

- ACM South-Central Regional Programming Team, *President since 2009* 2006–Present
- TCU Computer Science Society, *President in 2008* 2006–Present
- Association for Computing Machinery 2006–Present
- Chancellor’s Leadership Program, *Steering Committee Member* 2006–Present
- Grace Hopper Celebration for Women in Computing, *Student Volunteer* 2009
- OOPSLA (International Conference on Object Oriented Programming, Systems, Languages, and Applications), *Student Volunteer* 2009
- Connections (TCU Leadership Center) 2007
- State of Leadership Conference 2006–Present