ALIN TOMESCU

CAMBRIDGE, MA
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EDUCATION

Fall 2013 to present
Massachusetts Institute of Technology (MIT)
Ph. D. Student in Computer Science
Computer Science and Artificial Intelligence Laboratory (CSAIL)

Fall 2008 to Spring 2012
Stony Brook University
Bachelor of Science with Summa Cum Laude
Computer Science Honors with Information Assurance Specialization
Overall GPA: 3.98 (on a 4.0 scale)
Computer Science GPA: 4.0 (on a 4.0 scale)

WORK EXPERIENCE

May 2012 to August 2013
Head of Research & Development at Private Machines. Stony Brook, NY *(early-stage startup)*
Designed secure authentication protocols and implemented them using OpenSSL in C and Bash
Worked with, modified and contributed bug-fixes to open-source software
Configured and built Linux systems from scratch that ran on power-efficient hardware

May 2011 to August 2011
Software Development Engineer in Test Intern at Microsoft. Bellevue, WA
Developed a flexible performance framework in C# for testing critical MS SQL stored procedures used in the AdCenter
Business Intelligence system
Developed an ASP .NET user interface in C# for charting and graphing performance results across release cycles
Developed an automated test code deployment tool for running daily basic viability tests on the latest build bits

September 2008 to May 2009
IT Professional at Stony Brook Univ. Professional Education Program Office Outreach Division. Stony Brook, NY
Created and maintained two websites using XHTML and Dreamweaver
Created and maintained an SQL Microsoft Access database with over 8000 records
Created and administered a LISTSERV mailing list of over 8000 people
Assisted staff with various computer-related issues in Windows XP and the Lotus Notes email client

UNDERGRADUATE RESEARCH

Fall 2011 to Spring 2012
Research Assistant in the Network Security and Applied Cryptography Lab at Stony Brook University
Worked with a Computer Science PhD student under the guidance of Professor Radu Sion on secure data outsourcing in the
cloud using Oblivious Random Access Memory
Developed *privatefs*, the first oblivious file system providing practical access pattern privacy on data outsourced to untrusted
servers or the cloud

PUBLICATIONS

"PrivateFS: A Parallel Oblivious File System", Peter Williams, Radu Sion, Alin Tomescu, ACM Conference on Computer and
Communication Security CCS 2012 (acceptance rate: 19%, 80/421)

ACADEMIC EXCELLENCE

Spring 2012
The SUNY Chancellor's Award for Student Excellence
SUNY (State University of New York)

The highest honor bestowed by the State University of New York, this award is given annually to a very select number of graduating seniors who have demonstrated, and been recognized, for the integration of academic excellence with accomplishments in the areas of leadership, athletics, community service, creative and performing arts and career achievement

April 2012
Undergraduate Recognition Award for Academic Excellence
Stony Brook University
Undergraduate Recognition Awards are bestowed upon students who have significant accomplishments above and beyond the requirements of their academic degree programs. The Academic Excellence Award is awarded to a student whose passion for learning has extended beyond the classroom through excellence in research, internships or creative activity

May 2012
Academic Excellence in Computer Science
College of Engineering and Applied Sciences, Stony Brook University
The Academic Excellence Award is given to one exceptional Computer Science student in the graduating class of 2012

Fall 2009 to Spring 2012
Outstanding Academic Achievement Award
Division of Campus Residences and the Office of the Dean of Students, Stony Brook University
This award is presented every semester to undergraduate students who achieved a 4.0 GPA during the previous semester and have a minimum cumulative GPA of 3.85

April 2012
University Scholars Senior Leadership Award
Stony Brook University Scholars Program
Awarded to University Scholar who demonstrated outstanding leadership throughout their academic career at Stony Brook University

February 2011
NRHH February 2011 Student of the Month Award
National Residence Hall Honorary chapter at Stony Brook University
Awarded to a student leader who puts forth special effort during the month of nomination including leadership development, contribution to the people in his community and his activities

Fall 2009 to Spring 2012
Computer Science Honors Student
Stony Brook University
Admission is given to high-achieving Computer Science majors who have a minimum GPA of at least 3.5 both overall and in Computer Science and have completed three computer science classes, including two upper division courses

Fall 2008 to Spring 2012
Stony Brook University Scholar
Stony Brook University
Admission is given to freshmen with an exceptional record of academic achievements in high school

Fall 2008 to Spring 2011
Dean's List Recognition
Stony Brook University
Awarded to undergraduate students who constitute approximately the top 20 percent of their class

SKILLS

Good implementation skills in C, C++, C# and Java
Background in system and network security
Experienced in GUI, multithreaded and network programming on Windows, Linux and Java
Experienced with cloud computing and virtualization technologies
Web programming experience in PHP, ASP .NET, SQL, CSS, XHTML and JavaScript
Some experience in Bash and Python scripting
Strong OS background in Linux and Microsoft Windows

PROJECTS

privatefs
Secure and private file-system written in C++ using the FUSE libraries, providing full data access confidentiality using access pattern privacy techniques
OtrFTP
GUI-based file transferring program that can transmit files through an off-the-record channel, providing deniable authentication and perfect-forward secrecy
Simple File Sender
GUI-based file transferring program written in C, and later rewritten in C++, using the Win32 API and Windows Sockets API
Requirements for Undergraduate Majors (RUM)
PHP web application that allows students to verify their graduation requirements and automatically schedule required classes
Cypher
GUI-based file encryption tool written in C++ using the Win32 API
motivation.is-great.org
PHP website that creates motivational posters out of uploaded images using the GD library

ACTIVITIES

Spring 2009 to Fall 2010
Cofounder, vice-president and president of the Stony Brook Game Developers club
Advertised the club by announcing meetings during class time, sparking interest within the CS department
Held meetings and held various presentations while encouraging others to present as well, creating a very open community
Created a community website for our members to keep updated with each other and to discuss club related activities

Fall 2009 and Spring 2011
Teaching Assistant for CSE114 and CSE230
Held biweekly, one-hour and twenty-minutes CSE114 labs
Responsible for overseeing, teaching and grading thirty students in CSE114
Taught four CSE230 lectures on object oriented programming and design in C++
Advised students on both personal and academic levels during office hours and over email in both CSE114 and CSE230
Held office hours to help CSE230 students as well as other students with C and C++ programming questions
Proctored several midterm exams in both CSE114 and CSE230

Fall 2009 to Spring 2012
Stony Brook Computing Society E-board member and reviewer
Gave presentations and advertised club meetings throughout campus and the CS department
Held several review sessions before various CSE midterm exams (Java Programming, Discrete Mathematics, Data Structures)
Advised SBCS members on scheduling their Computer Science courses

Spring 2011 to Spring 2012
CEAS Student Ambassador for the Stony Brook Computer Science department
Introduced students and parents to Stony Brook University and the Computer Science department during Admitted Students Day and Engineering Day
Answered parents' and students' questions about Stony Brook University and the Computer Science department
Encouraged prospective Computer Science students to accept their Stony Brook admission offer by telling them about my own experience as a Computer Science major

Fall 2009 to Fall 2011
Intramural soccer team captain and player
Started the B3 soccer team in Fall 2009 with a couple of friends and recruited talented players

Won the Fall 2010 Indoor Soccer tournament
Won the Fall 2011 Indoor Soccer tournament

COMMUNITY SERVICE

April 2011

"Around the World in 80 Minutes! International Fashion Show" Volunteer Model

Community Service Club at Stony Brook University

Volunteered to be a model for a charity fashion show to help raise money for an orphanage in Haiti

July 2011

Microsoft Intern Day of Caring Volunteer

Microsoft Corporation and EarthCorps

Helped clear a large forest area from non-native invasive blueberry plants in Seward Park, Seattle

July 2009

Volunteer in the Campaign for the Ecological Restoration of Romania, at Cheile Vâlsanului

Association of Tourism and Ecology "Times" (Asociatia de Turism si Ecologie "Vremuri")

Argeş County Agency for Environmental Protection (Agenţia pentru Protecţia Mediului Argeş)

Argeş County Forest Agency (Direcţia Silvică Argeş)

Joined "Luna Şuie," a group of volunteers, to help clean and rehabilitate a polluted area in the mountains of Romania called "Cheile Vâlsanului"

SCHOLARSHIPS

Fall 2008 to Spring 2012
Provost's Scholarship
Stony Brook University
Awarded to full-time out-of-state students with a minimum cumulative GPA of 3.00

Fall 2008 to Spring 2012
Academic Program Scholarship
Stony Brook University
Awarded to full-time students in the College of Engineering & Applied Sciences with a minimum cumulative GPA of 3.00

Fall 2009 to Spring 2010
Academic Competitive Grant
Stony Brook University
Awarded to full-time students who completed a rigorous high school program of study and have a cumulative GPA of 3.00 or higher at the end of their 1st academic year

Fall 2010 to Spring 2011
SMART Grant
Stony Brook University
Awarded to students in their third academic year of study who are majoring in physical, life or computer science, engineering, mathematics, technology, or a critical foreign language, have a cumulative GPA of 3.00 or higher and, for each term awarded, are enrolled in at least 1 course required for the eligible major