

Upsilon Pi Epsilon
Department of Computer Science
207 Lally Hall
Rensselaer Polytechnic Institute
110 8th Street Troy, NY 12180-3590
January 29, 2017



To Whom it May Concern:

Thank you for taking the time to read this semester's edition of the Upsilon Pi Epsilon résumé book. We would like to start off by telling you a little bit about our organization.

Upsilon Pi Epsilon is the first and only existing international honor society in the Computing and Information disciplines, and was founded in 1967 at Texas A&M University. The mission of Upsilon Pi Epsilon is to recognize academic excellence at both the undergraduate and graduate levels in the Computing and Information Disciplines.

Our chapter of Upsilon Pi Epsilon does its job to promote Computer Science locally through a variety of activities, including tutoring services, an annual programming competition, and various programming projects that benefit both RPI's computer science department as well as the institute as a whole.

The members of the RPI Chapter of Upsilon Pi Epsilon are some of the best and brightest Computer Science and Computer Engineering students that this prestigious institute has to offer. To be accepted into this organization, a candidate must excel in the Computing and Information disciplines both inside and outside the classroom.

Thanks again for your time, and please keep the members of Upsilon Pi Epsilon in mind while looking for talented and motivated employees for your company.

Sincerely,

Upsilon Pi Epsilon
Rensselaer Polytechnic Institute Chapter

Benjamin ESPEY

PERSONAL DATA

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ADDRESS: 9522 Leesburg Pike, Great Falls, VA 22066
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CITIZENSHIP: United States
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EDUCATION

2014 - 2017 Bachelor of Science: Computer Science, **Rensselaer Polytechnic Institute, NY**
In major GPA: 3.55 Current GPA: 3.47

WORK EXPERIENCE

JUNE 2016-PRESENT	Lead Programmer at CIT, National Institutes of Health Fully developed a gold-standard, open-source, research platform aimed at studying teen driving behavior. Built expandable frameworks and modern user interfaces using <i>Swift</i> and <i>XCode</i> for Apple's <i>iOS</i> platform. The app is staged to be alpha-released to 100 teen drivers.
SEPT 2015-PRESENT	Undergraduate Mentor for RPI Guide budding computer scientists in their quest to understand the changing digital world around them. I work with first year students, currently working in VB, helping them to grasp core programming concepts and practices.
NOV 2014-MAY 2015	Tutor at InstaEDU / Chegg Part time online tutor for computer science, math, and physics students.
MAY-JULY 2014	Senior Programmer at Lehmann Systems, LLC Worked with a small team to develop a GPS and accelerometer based ANDROID app for rowing coaches to track and communicate with their teams.
JUNE-AUG 2013	National Institutes of Health Developed an algorithm in MATLAB that worked to separate patients into lifestyle groups based on their brain activity collected through electroencephalography. Algorithm was successful in distinguishing a group of smokers from the control group.

COMPUTER SKILLS

Languages: Java, Swift, C++, C, Visual Basic.NET, VBA, Haskell, Javascript, Python, L^AT_EX, HTML, CSS
Platforms: iOS, ANDROID, Windows OS, Mac OS, LINUX, MIPS, ubuntu
Software: Adobe Photoshop, Illustrator, Visual Studio, XCode, Trimble/Google Sketchup

SCHOLARSHIPS AND CERTIFICATES

2015-16 Rensselaer Dean's Honor List
2014 National Merit Scholarship
2014 Rensselaer Leadership Award

INTERESTS AND ACTIVITIES

Interests	Innovative technology, open-source, programming, Data Visualization, hackathons, Graphic Design, Reverse Engineering, Cryptography & Security, Machine Learning, team-oriented projects, solving puzzles, and learning new skills. Proficient in Chinese, Coxswain for state gold-medalist rowing team.
Clubs:	Rensselaer Center for Open Source, RPI Tespa ESports, RPISEC security club, Rensselaer Hackathon Organization.

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College
2332 16th Street
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Home
17 Pilgrim Road
Milton, MA 02186

EDUCATION

Rensselaer Polytechnic Institute (RPI)

Dual Majors: Computer Science, Mathematics
GPA: 3.78 – Dean's Honor List

Troy, NY
May 2017

EXPERIENCE

Global Services Intern

June 2016 – August 2016

PTC – Needham, MA

- Utilized Node.js and AngularJS to develop an application that easily simulates data on the ThingWorx platform
- Enhanced user interface design for the application using HTML and Bootstrap libraries

App Developer

January 2015 – present

48 Hour Industries

- Developing iPhone apps using Unity 3D software in a company created by a group of fellow students
- Current project is a game to roll a ball around a screen to collect items and avoid objects that end your game

Programming Intern

May 2014 – July 2014

Boston University – Boston, MA

June 2012 – August 2012

- Developed software in Java for the mass spectrometry department
- Enhanced program to generate databases based on user-entered requirements (e.g., specific amino acids, mass ranges, etc.) which can be inserted into larger online databases, such as UNIMOD, to search for post-translational modifications on proteins
- Coded program to facilitate modification data analysis utilizing customized output files, created by merging data and integrating fields which incorporate user designated inputs (e.g., pre-existing modifications or new modifications (including edited modifications)) and file text
- Undertook development of a project to identify combinations of amino acids that add up to a certain mass to aid in protein research (proteomics)

Senior Project Internship

May 2013

Whitehead Institute – Cambridge, MA

- Reduced DNA analysis Perl program runtime by approximately 33%
- Wrote HTML code to run this program on Whitehead's website

SKILLS

Languages: Java, C++, Python, JavaScript, MATLAB, C, HTML, Perl, C#

ACTIVITIES

Upsilon Pi Epsilon, Secretary; Mentor for Women's Mentoring Program; Outreach mentoring in Python and JavaScript at Shaker High School

Max L. Wang

Present Address

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wangm13@rpi.edu

Permanent Address

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Shelton, CT 06484
(203) 893-8770

Education

Rensselaer Polytechnic Institute (RPI), Troy, NY
Pursuing a B.S. in Computer Science and
Information Technology and Web Science

Expected: May 2019
GPA: 3.72

Experience

Troy Shirt Co., Troy, NY

Web Development Intern

July 2016 - August 2016

- Worked on a website application to design T-shirts
- Front-end development using open source Javascript libraries
- Enhanced collaborative skills while working with another RPI student

Kumon, Shelton, CT

Tutor

Sept 2013 - August 2015

- Specialized in reading comprehension and mathematics.
- Taught 10-15 students ranging from Pre-K - 12
- Strengthened communication and social skills

Marcy's Tennis Academy, Trumbull, CT

Tennis Coach

June 2014 - Dec 2014

- Taught fundamental tennis skills to children.

Relevant Coursework

Intro to Algorithms

Fall 2016

- Data structures, algorithms, and the techniques necessary to design and analyze them. Techniques for designing algorithms and analyzing worst and expected-case algorithm efficiency.

Web Systems Development

Fall 2016

- Study of the methods used to extract and deliver dynamic information on the World Wide Web. Develop Web-based software systems, and manage Web servers.

Data Structures

Fall 2015

- Analyzed complex programming concepts, data structures and their representations, algorithms, testing correctness, and measuring performance.

Computer Skills

Languages: Proficient in C++, Java, HTML/CSS, Javascript
Software: Microsoft Office(Word, Excel, Powerpoint), LaTeX, GitHub

Leadership Activities

Upsilon Pi Epsilon, New York Eta Chapter

Dec 2016 - Present

- Computing and Information Technology Honor Society

FIRST Robotics Team, Shenendehowa High

Oct 2015 - Present

- Programming Mentor (Java)

FIRST at RPI Club

Oct 2015 - Present

- Connecting RPI students with teams in need of mentors.

FIRST Robotics Team, Shelton High

Sept 2012 - June 2015

- Captain. Lead Programmer (C++)

Honors

Dean's Honor List, Rensselaer Medal, Bausch & Lomb Award

Wilson Gregory

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518-590-6182

Education

Rensselaer Polytechnic Institute (RPI), Troy, NY. BS Computer Science, Math May 2018

-GPA: 3.91

Sharon High School (SHS), Sharon MA June 2014

-GPA: 5.8 on the 6.0 scale.

Skills

Programming Languages: Fluent in C/C++ and Java

-Experienced with web development: HTML, CSS, JavaScript

-Strong Object-Oriented Programming Skills

-Experienced with UNIX command line interface

Relevant Coursework

-Algorithms

-Linear Algebra

-Probability Theory

-Machine Learning

Work Experience

General Dynamics Mission Systems, Software Quality Assurance Intern Summer 2016

-Worked closely with software development team to identify, replicate, and log bugs in software

-Performed 70% of testing workload on kiosk software for military networking equipment

-Identified over 20 unique bugs present in the software and verified 12 successful bug fixes

Z-Source, Front End Developer January 2016-Now

-Wrote front end code for dynamic webpages using HTML and AngularJS tools

-Worked with other developers to create plan for database backend using the MEAN stack.

RPI Computer Science Dept., Teacher's Assistant for Data Structures Spring 2015-Now

-Mentored students 1-on-1 in a variety C++ concepts including pointers, data structures, recursion, logic, and run-time efficiency. Helped teach critical thinking and debugging skills

Everwood Day Camp, Lifeguard and Swim Instructor Summer 2015

College Academy Summer Camp, Teacher Summers 2013-2014

-Developed a curriculum and taught children about basic physics and engineering concepts

Extracurricular Activities

Delta Phi Fraternity, Vice President 2015-2016 Year

-Planned and executed Leadership Week, a week-long series of events aimed at improving the house, building leadership skills, and strengthening friendships

-Maintained day-to-day upkeep of the house and coordinated special events with the President and other officer positions including Social Chair, Rush Chair, Athletics Chair, etc.

-Helped plan and execute over 20 rush events, 25 social events, and 6 philanthropy events.

SHS Varsity Sailing Team, Captain 2013-2014 Season

-Organized fund-raising efforts, planned team dinners, led the team on and off the water

Awards

Dean's Honor List RPI

SHS Varsity Sailing Principal's Award, received for all-around success on the team 2014

Delta Phi Highest GPA Award Fall 2014, Spring 2015

Zishan Huang

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OBJECTIVE

To obtain a summer internship or a summer and fall co-op in software engineering.

EDUCATION

Rensselaer Polytechnic Institute (RPI), Troy, NY

Expected: May 2018

Dual B.S. Degree in Computer and Systems Engineering & Computer Science

Cumulative GPA: 3.98/4.0 | Dean's List

RELATED EXPERIENCE

Rensselaer Center for Open Source Project: Submittity, RPI

May 2016 - Present

- Redesigned, implemented and tested the student submission interface and the TA grading interface for the RPI homework submission server.
- Implemented features including draggable and resizable grading panel, drag-and-drop file upload and inline pdf and image display in PHP, JavaScript, HTML and CSS.
- Goals for this semester: Allow multiple graders to grade one assignment. Enable the upload and auto-grading of short answer or multiple choice questions.
- Project home page: submittity.org/

Undergraduate Teaching Assistant: Introduction to Algorithms, RPI

January 2016 - Present

- Explain algorithmic problems and help students debug Python programs in labs.

Undergraduate Teaching Assistant: Data Structures, RPI

September 2015 - December 2016

- Supervised labs and office hours and assisted students in C++ programming and debugging.

Research Assistant: Mandarin Dialogue with Cognitive Agent, RPI

April 2015 - August 2015

- Researched on data collection and AI storytelling methods in human-computer interaction.
- Implemented and tested Text-to-Speech and Speech Recognition features into the C# back end and the Unity front end using the Xunfei API.

RELATED COURSEWORK

Machine Learning from Data, RPI

Fall 2016

- Studied machine learning concepts and implemented techniques including non-linear transform, nearest neighbor algorithm, neural network and support vector machine in Python and MATLAB to classify handwritten digits.

Operating Systems, RPI

Fall 2016

- Analyzed different operating systems designs and implemented some specific operating system constructs in C on a Linux platform for real-world systems-level programs and applications.

ACTIVITIES

Member / Tutoring Chair, Upsilon Pi Epsilon, RPI

December 2016 - Present

Club Officer, Rensselaer Artificial Intelligence League, RPI

March 2016 - Present

SKILLS

Programming: C++, C, Python, C#

Operating Systems: Windows, Linux

Web Development: PHP, JavaScript, HTML

Design and Modeling: MATLAB, Pspice, NX

Yichuan Wang

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OBJECTIVE: To obtain an internship in software development and engineering.

EDUCATION:

Graduation Date: May 2018

Rensselaer Polytechnic Institute, Troy, NY
B.S. in Computer System Engineering and Computer Science
GPA: 3.81/4.00 | Dean's List

EXPERIENCE:

Personal Project

Stewart Platform

April 2016 – Present

- Designed and built a 6 degrees of freedom Stewart Platform using mathematic modeling, CAD design and laser cutting technique.
- Developed C++ control software for Stewart Platform for 6D motion by solving reverse kinematics of parallel mechanism.
- Built C++ software including maze solving (A*), PID position control, realtime acceleration simulation and path tracking.

Center of Automation Technologies and Systems

May 2016 - Present

Undergraduate Research

- Built a hand-held SLAM (simultaneous localization and mapping) system based on hector-slam package.
- Developed software and hardware for mobile robot fuel-cell battery management system that extends operation time by 6 times.

Data Structures, RPI

March 2015

Carcassonne Project

- Developed highly optimized C++ program that recursively solves a tile placement puzzle. The program is 1000 times faster than the average puzzle solvers.

Laboratory Introduction for Embedded Control, RPI

September 2015 - December 2015

Teaching Assistant

- Helped students on C programming, breadboard circuit design and hardware system troubleshooting.

COURSEWORK:

Introduction to Algorithm, RPI

- Learned fundamental ideas and designs of modern algorithms.
- Developed techniques to analytically evaluate performance of given algorithms.

Data Structures, RPI

- Learned fundamental data structures and their applications in real world problem.
- Developed basic understanding of C++ programming language and designs of C++ standard library.

Embedded Control, RPI

- Developed C programming skills and troubleshooting skills of systems involving microcontroller units.
- Simultaneously developed software and hardware for both wheel based and aerial-based mobile robot.

Introduction to Engineering Design, RPI

- Placed No.1 in the course's marshmallow launcher competition.
- Worked as a project leader and a software developer for team's 2-axis self-stabilizing platform project.

SKILLS:

Programming:	C++, C, Python, Java
Robot Development:	ROS (Robot Operating System), Robot Raconteur
Electronics Design:	PSpice, LogicWork, PCB soldering
Design & Modeling:	Matlab, NX, CorelDRAW,
Operating System:	Linux, Windows

Michael Adams

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Phone: (978) 868-3880 Email: adamsm6@rpi.edu

Objective

Seeking a co-op in software engineering to gain knowledge of the computer science industry and utilize the skills I have acquired through internships and extracurriculars.

Education

Rensselaer Polytechnic Institute, Troy, New York

Expected Graduation: May 2018

Bachelor of Science in Computer Science

Cumulative GPA: 3.98

Relevant Coursework: Data Structures, Introduction to Algorithms, Networking Laboratory 1, Numerical Computing, Programming Languages, Intro to AI, Operating Systems

Relevant Work Experience

New York State Department of Labor

June 2016 – August 2016

Student Assistant for the Information Technology QMC Division

- Lead the development of a keyword driven automation framework, utilizing Selenium and JDBC that is currently in production use.
- Spearheaded the replacement of manually run tests with multithreaded automation scripts in order to increase testing efficiency and reliance.

RPI Computer Science Department

August 2016 – present

Undergraduate Mentor

- Clarified complex computer science theory and discrete mathematics, and assisted students during lab to understand computer algorithms and implement them efficiently.

Rensselaer Advising and Learning Assistance Center

January 2015 – May 2016

Computer Science Tutor (Computer Science 1 and Data Structures)

- Analyzed student-learning patterns in order to develop an academic approach that would be most effective.
- Guided students toward readable and maintainable code and academic success.

Skills

- Programming Experience: C++, Python, C, Java, MIPS, Swift, Matlab, SQL, Selenium, Oz, Haskell, Erlang, Ruby on Rails
- Software: Microsoft Office, LaTeX, Xcode, Mac OSX, Windows, Eclipse, QtSPIM, IntelliJ, PLSQL, Unix, Maven

Activities and Awards

- Upsilon Pi Epsilon Honor Society, Ping Pong Club, Intramural ice hockey, Intramural soccer
- Dean's Honor List Spring 2016, Dean's Honor List Fall 2015, Dean's List Fall 2014, Dean's List Spring 2015, Presidents Education Award

Yiyang Li

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Phone: (518) 961-5240

Education

Rensselaer Polytechnic Institute (RPI) , Troy NY	05/2017
B.S. in Computer and Systems Engineering/Computer Science; GPA: 3.85/4.0	

Publications

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- [1] L. Cheng, Y. Guan, K. Zhu, and Y. Li, "Body activity recognition using wearable sensors", IEEE Annual Computing and Communication Workshop and Conference, Las Vegas, USA, 2017 (Accepted).
- [2] L. Cheng, Y. Li, and Y. Guan, "Human activity recognition based on compressed sensing", IEEE Annual Computing and Communication Workshop and Conference, Las Vegas, USA, 2017 (Accepted).
- [3] L. Cheng, Y. Guan, K. Zhu, and Y. Li, "Accelerated Sparse Representation for Human Activity Recognition," 19th International Conference on Machine Learning and Applications, Copenhagen, Denmark, 2017 (Accepted).

Research

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- | | |
|--|-------------------|
| Undergraduate Research Assistant, Robotics Lab, RPI; Advisor: Prof. John Wen | 01/2015 – Present |
| <ul style="list-style-type: none"><i>Robotics control of stethoscope</i>
Collected data from the stethoscope using pipe
Filtered the noise and analyzed the data of heartbeat using Matlab | 05/2015 – Present |
| <ul style="list-style-type: none"><i>Trossen Robot Arm (for Robotics I course)</i>
Developed the firmware and the interface for robot arm using Python and RobotRaconteur | 01/2016 – 12/2016 |
| <ul style="list-style-type: none"><i>Dobot Arm (for Robotics I course)</i>
Built an interface for the Dobot Arm using Python and RobotRaconteur | 09/2016 – 10/2016 |
| <ul style="list-style-type: none"><i>Zeno Robot</i>
Set up Java servers and replaced its microcontroller with Arduino and develop new firmware | 05/2016 – 08/2016 |
| Independent Researcher, RPI | 01/2016 – 05/2016 |
| <ul style="list-style-type: none"><i>Body activity recognition</i>
Applied three machine learning algorithms and compressed sensing method for human activity recognition | |
| Undergraduate Research Assistant, Energy Materials and Devices Lab, RPI | 10/2015 – 12/2015 |
| <ul style="list-style-type: none"><i>Solar Panel</i>
Used a Raspberry Pi to control a solar panel | |

Teaching

Mentor, SASE (Society of Asian Scientists & Engineers), RPI	04/2016 – present
Undergraduate Mentor, Computer Science I (Python), RPI	09/2014 – 05/2015

Relevant Skills

<i>Programming</i>	Python, Java, C, C#, C++, Matlab, R, Haskell, OZ, Erlang, Mysql, Oracle
<i>Software</i>	RobotRaconteur, ROS, Gazebo, PSpice, NX CAD, Solidworks
<i>Hardware</i>	Arduino, Raspberry Pi, Oscilloscope

Relevant Projects

Electrical Team member, NASA – Sample Return Robot Challenge, WPI	01/2015 – 12/2015
<ul style="list-style-type: none">• <i>RPI Rock Raiders</i> Built an autonomous rough-terrain robot that could find and retrieve samples Result: Passed the inspection; Robot moved off the starting platform and started to search targets	
Software Developer, RCOS (Rensselaer Center for Open Source), RPI	01/2015 – 06/2015
<ul style="list-style-type: none">• <i>GoMueller</i> Developed an Android app (GoMueller) using Java and Mysql Database Enabled users to track work progress by date, weight, number of sets	

Leadership

Tutoring Chair, Upsilon Pi Epsilon Honor Society, RPI	04/2016 – present
External Affairs Coordinator, RPI CSSA (Chinese Students and Scholars Association)	01/2013 – 01/2016

Honors & Awards

Upsilon Pi Epsilon, RPI Chapter (Honors society for the computing and information disciplines)
RPI Dean's List (all semesters)