

Gerald F. Wu

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Skills

Programming: Java, C++, OCaml, Racket, C, Processing, Bash, SQL*Plus, Python, Javascript, HTML/CSS

OS: GNU/Linux, Solaris, Mac OS X, Windows

Virtualization: QEMU/KVM, Oracle VirtualBox, VMWare Fusion

Education

Brown University

Providence, Rhode Island

MAJOR: COMPUTER SCIENCE, APPLIED MATH

2017 - PRESENT

Current Courses in Computer Science and Applied Math

Spring 2018 **CSCI 0180**, Computer Science: An Integrated Introduction

Spring 2018 **APMA 0350**, Applied Ordinary Differential Equations

Spring 2018 **APMA 0360**, Applied Partial Differential Equations

Spring 2018 **MATH 1530**, Abstract Algebra

Completed Courses in Computer Science and Applied Math

Fall 2017 **CSCI 0170**, Computer Science: An Integrated Introduction

B

Fall 2017 **MATH 0540**, Honors Linear Algebra

A

Fall 2017 **MATH 0350**, Honors Calculus (Multivariable)

A

Other Courses

Spring 2018 **PHYS 0160**, Introduction to Relativity and Quantum Mechanics

Fall 2017 **PHYS 0070**, Analytical Mechanics

*S**

Fall 2017 **ENGL 0900**, Critical Reading and Writing I: The Academic Essay

*S**

Thomas Jefferson High School for Science and Technology

Alexandria, Virginia

HIGH SCHOOL EDUCATION

2013 - 2017

- GPA: 4.37

- Courses focused on computer science and math:

- Foundations of Computer Science

- AP Computer Science with Data Structures

- Parallel Computing

- Computer Systems Research

- Calculus BC

- Multivariable Calculus

- Linear Algebra

- Ordinary Differential Equations

Experience

Fairfax Collegiate

Reston, VA

TA

Jul. 2017 - Aug. 2017

Smithsonian Institution

Capital Gallery, Washington D.C.

INTERN

Jun. 2016 - Aug. 2016

- Metadata extraction tool
 - Script will read (extract) embedded metadata within each asset
 - Populate Oracle database tables with the extracted metadata
 - Written in Java and shell scripts
- Metadata ingestion tool
 - Script will automatically ingest spreadsheets containing metadata about many digital assets
 - Populate Oracle database tables with the metadata info
 - Written in Java

Smithsonian Institution

Capital Gallery, Washington D.C.

INTERN

Jun. 2015 - Aug. 2015

- Worked on two-part data integrity program for Smithsonian Digital Asset Management System
 - Used to check for corruption in large media files stored on a remote server to ensure data integrity
 - Manages hundreds of millions of digital assets
- First part ingested MD5 data provided by user in a specified folder into the DAMS server
 - Written with Bash scripting
- Second part verified data preservation at later dates by generating and comparing MD5 checksums, and writing pass/fail results to Oracle RDBMS
 - Could selectively check data based on external configuration file
 - Generated report and sent notifications to respective users
 - Written in Java
- Put into production after testing
 - Has been in production for over a year
 - Used by multiple museums in the Smithsonian

SmartNoter LLC

Fairfax, Virginia

MOBILE APP CONTENT CREATOR AND APPLICATION TESTER

Jun. 2014 - Aug. 2014

- SmartNoter LLC provides educational content via mobile apps
- Produced educational videos using Camtasia
- Worked with program managers and developers to test application functions and improve user interface and experience

Science Olympiad Coaching

Longfellow Middle School

MENTOR

2013-2017

- Coached students in a Science Olympiad event
 - Coached elementary school students while in middle school
 - Started coaching middle school in freshman year
- Met on a weekly basis
 - Prepared lesson plans and gave lectures
 - Administered tests and discussed problems afterwards
- Team has won top awards at the state level every year

Science Olympiad Awards

STATES

2016 **2nd Place**, Science Olympiad: Mystery Design (Vehicle Engineering)

Charlottesville, VA

REGIONAL

2016	1st Place , Science Olympiad: It's About Time (Timekeeping Engineering)	<i>Falls Church, VA</i>
2016	1st Place , Science Olympiad: Dynamic Planet (Oceanography)	<i>Falls Church, VA</i>
2016	4th Place , Science Olympiad: Astronomy	<i>Falls Church, VA</i>
2015	1st Place , Science Olympiad: Astronomy	<i>Falls Church, VA</i>
2015	2nd Place , Science Olympiad: Experimental Design (Scientific Method)	<i>Falls Church, VA</i>
2015	4th Place , Science Olympiad: It's About Time (Timekeeping Engineering)	<i>Falls Church, VA</i>

INVITATIONALS

2016	1st Place , Science Olympiad: Astronomy	<i>Fairfax, VA</i>
2016	5th Place , Science Olympiad: It's About Time (Timekeeping Engineering)	<i>Fairfax, VA</i>
2015	1st Place , Science Olympiad: It's About Time (Timekeeping Engineering)	<i>Fairfax, VA</i>
2015	4th Place , Science Olympiad: Experimental Design (Scientific Method)	<i>Fairfax, VA</i>

Other Volunteer & Community Service

Techstravanganza

TJHSST

VOLUNTEER

2015 - 2017

- Demonstrated STEM activities at booths for young students

STEMbassadors

Misc. Schools

VOLUNTEER

2015 - 2017

- Demonstrated STEM activities at booths for young students