

Gerald F. Wu

COMPUTER SCIENCE · APPLIED MATH

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Skills

Programming: Java, C++, OCaml, Racket, C, Processing, Bash, SQL*Plus, Python, Javascript, HTML/CSS
Virtualization: QEMU/KVM, Oracle VirtualBox, VMWare Fusion
Other: LaTeX, GNU/Linux Systems Administration, Proficiency in major OS's (GNU/Linux, Solaris, Windows, macOS)

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
Fall 2017 **MATH 0540**, Honors Linear Algebra
Fall 2017 **MATH 0350**, Honors Calculus (Multivariable)

B
A
A

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

TEACHING ASSISTANT

Jun. 2017 - Aug. 2017

- Summer enrichment program for elementary and middle school students
- Worked as a TA for hands-on classes
 - Morning and afternoon sessions
 - Each class lasts two weeks
- Classes taught:
 - Inventing and 3D Printing (7-9)
 - Biomedical Engineering (7-9)
 - Arduino Engineering (7-9)
 - Web Video (7-9)
 - Spy Science (3-4)
 - Forensic Science (7-9)
 - Animal Physiology (7-9)
 - Video Production (7-9)

Physics Tutor

McLean, VA

PRIVATE TUTOR

Jul. 2017 - Aug. 2017

- Worked as a private physics tutor for high school students
 - Covered AP Physics C: Mechanics
- Met twice a week
- Created lesson plans, homework, and lecture captures

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
 - Used SQL*Plus calls to populate the database
 - Ran on Solaris-based servers
- Metadata ingestion tool
 - Script will automatically ingest spreadsheets within ingest folders containing metadata about many digital assets
 - Populate Oracle database tables with the metadata info
 - Written in Java
 - Used SQL*Plus calls to populate the database
 - Ran on Solaris-based servers and accessed Windows-based network shares

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 two years
 - 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

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