Matthew Zhu

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA
B.S. in Computer Science, Minor in Mathematics — Expected May 2018

- Cumulative GPA: 3.90 / 4.00
- Completed coursework: imperative and functional programming, discrete math, computer systems, parallel and sequential data structures and algorithms, distributed systems
- Coursework in progress: machine learning

SKILLS

Proficient: Python, C, JavaScript, HTML5, CSS3, SML
Familiar: Java + Android, Intel x86-64 Assembly, Perl, Ruby on Rails, Angular, React

EXPERIENCE

Carnegie Mellon University, Pittsburgh, PA — Aug 2016 – present
Teaching Assistant for 15-122

- Managed introductory CS course of 475 students with a team of 32 other TAs
- Led 3 weekly lab sessions of about 20 students each and held office hours to answer questions about concepts and homework

Intentional Software, Seattle, WA — Jun 2016 – Aug 2016
Intern Software Analyst and Developer

- Created a C#/C++ CLI interop layer to profile GPU performance for a flagship office productivity app designed for large touchscreens
- Implemented precise GPU method timing using DirectX 11 queries in aforementioned profiling layer to help discover performance bottlenecks in the app's release candidate

Motorola Solutions, Plantation, FL — Jun 2015 – Aug 2015
Embedded Software Engineer

- Developed 2 Perl tools to automate verification of correctly downloading wireless firmware updates for two-way radios
- Reconstructed binary files from chunks, sent them wirelessly to the radio, and verified that the received data in the radios' output logs matched the sent data

PROJECTS

MAO Timers

- Web app that accurately simulates proctors in competition testing environment for 8 test types administered by Mu Alpha Theta math honor society
- In official use since the 2014 National Convention

Ten-Second Planetarium

- HTML5 canvas visualization using math and astronomical data that depicts the passage of time using the benchmark that ten seconds represents one year
- Approximates Kepler's three laws of planetary motion

Subvert: Resistance Universe Toolkit

- Android app that implements all the gameplay of the party board games The Resistance and The Resistance: Avalon, so they can be easily played without a game board or game pieces

HONORS

School of Computer Science Dean's List — Spring 2016
For attaining a semester GPA of 3.75 or higher

Mellon College of Science Dean's List with High Honors — Fall 2014 – Fall 2015
For attaining a semester GPA of 3.75 or higher

Ranked in top 25% in Putnam Mathematical Competition — 2014
15 / 120 points; over 4000 participants nationwide