Matthew Zhu

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA — Expected Dec 2017
B.S. in Computer Science, Minor in Mathematics

- Cumulative GPA: 3.90 / 4.00
- Selected courses: machine learning, distributed systems, numerical methods, technical communications
- In progress: computer graphics, computational photography, discrete differential geometry, ML on large datasets

EXPERIENCE

Amazon Lab126, Sunnyvale, CA — Jun 2017 – Aug 2017
SDE Intern, Alexa Engine

- Enabled sending cloud-initiated directives to tablets using MQTT over AWS IoT instead of opening voice channels over HTTP, which is prohibitively unscalable
- Reorganized Alexa connection services to allow easier integration of new devices

Carnegie Mellon University, Pittsburgh, PA — Aug 2016 – Dec 2016
Teaching Assistant for 15-122 Principles of Imperative Computation

- Managed introductory CS course of 400+ students with a team of 32 other TAs
- Led 3 weekly labs of ~20 students to help guide students through coding exercises
- Held weekly office hours to answer questions about concepts and homework

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

- Created GPU performance profiling layer in C# and C++ CLI for an early version of the Whiteboards app for the Microsoft Surface Hub

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

- Built 2 Perl tools for end-to-end testing that two-way wireless radios correctly remotely receive and decode firmware updates

SKILLS

Languages: Python, Java, C, JavaScript, HTML5, CSS3, SML, Perl, Ruby on Rails
For fun: Linux Mint for my laptop, Git for my homework, Audacity for mashups

PROJECTS

Scalable Store Service, 15-440 Distributed Systems

- Elastic load-balancing system in Java to handle simulated request patterns for an online store while maximizing throughput and minimizing resource usage

MAΘ Timers

- Web app that simplifies timing logistics, previously managed by proctors manually, for the MAΘ national math honor society. Officially used since 2014

Ten-Second Planetarium

- Web visualization of the solar system that approximates physical laws of planetary motion, with speed scaled such that an Earth year lasts ten seconds

Subvert: Resistance Universe Toolkit

- Android app to aid portable gameplay of the board game Avalon/The Resistance

HONORS

School of Computer Science Dean's List — Spring 2016 – Spring 2017
Mellon College of Science Dean's List with High Honors — Fall 2014 – Fall 2015