

SYLVAN ZHENG

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EDUCATION

BS Computer Science 2017
Yale University

TECHNICAL EXPERIENCE

- Facebook Inc.: SWE Intern (Hack/PHP) 05/2016-08/2016
Scaling Facebook's internationalization platform database to utilize ElasticSearch in order to improve database query performance on user strings, language variations, and translations. Restructured search infrastructure to improve search accuracy and allow for more flexible feature development.
- GRAINPLANE (Max/MSP/gen/Java) 04/2016-05/2016
Design and construction of a novel musical interface for granular synthesis techniques, using realtime audio analysis with Cycling 74's Max. Presented at the AudioMostly conference in Norrköping, Sweden.
- SYNPLAY (C++) 04/2016-05/2016
Implementation of a cross-platform multireceiver audio streaming and synchronization network protocol, resistant to clock drift and packet loss
- LATCHLOCKR (C++) 04/2016-05/2016
Coordinated research investigating the performance characteristics of latch free vs conventionally latched lock managers in database management systems.
- CS50 Teaching Fellow 07/2015-12/2015
Responsible for leading discussion section, grading homework and quizzes, and providing support to students taking Yale's experimental introductory computer science course in collaboration with Harvard.
- Exosomes: Lux | Ideas Through Light 04/2015
<https://youtu.be/q9H5QtGmo3k>
In collaboration with Mark Saba, created a five minute projection piece created with HTML5 canvas and Javascript. The algorithmic soundtrack was informed by image processing and was built using Ruby and Supercollider
- Reservations (Ruby) 06/2014-present
github.com/yalestc/reservations
 - Open source equipment management system written on top of Ruby on Rails
 - Major contributions: severe database query optimization, construction of user authentication system, and refactoring of data analysis reporting feature.
- TI-83/84+ Calculator Projects 2008-2012
www.ticalc.org/archives/files/authors/104/10456.html
Creator of multiple programs featured on ticalc.org, including complex RPG engines, primitive synthesizers, Cuberunner, and winner of the 2010 Omnimaga Programming Contest (AI driven ARPG). Most work done in Axe, a thin abstraction layer over z80 assembly.
- Princeton Plasma Physics Lab 09/2013-02/2014
Researching the plasma speaker; determined key audio characteristics and behaviors using audio analysis tools in addition to high speed camera work.