

# Henry Yu

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## Current Coursework

- Operating Systems
- Distributed Systems
- Programming Languages

## Relevant Coursework

- Data Structures & Algorithms
- Parallel Computing
- Computer Networking
- Computer Security
- Computer Architecture
- Computational Thinking
- Automata/Formal Languages
- SAS Base Programming

## Skills

- Java, C/C++, C#, Python
- Scala, Prolog
- MPI, Cilk, CUDA
- JavaScript, PHP, Ruby
- Matlab, SAS
- .NET, Rails, Android
- Drupal, WordPress
- Canva, Justinmind
- Fluent in Mandarin Chinese

## Affiliates

- **Alpha Kappa Psi**  
Professional Business Fraternity
- **WiSH** Women in Software & Hardware

## Education

### University of California, Santa Barbara

B.S. Computer Science

March 2018 (Expected) Dean's Honor, 3.43 GPA (3.56 UD Major GPA)

## Experience

### Software Engineering Intern, Amazon

Seattle, WA

June 2017 – September 2017

- AWS/Advertisements

### Software Engineering Intern, KPMG

Seal Beach, CA

June 2016 – August 2016

- Developed a .DAT file viewer written in C# using Windows Presentation Foundation, MVVM architecture, .NET framework as part of the Discovery Radar 5 project while practicing Agile

### Software Engineering Intern, ONTRAPORT

Santa Barbara, CA

January 2016 – March 2016

- Created a functional CRM using PHP and MySQL incorporating RESTful procedures, OOP concepts, and MVC architecture
- Developed automated tests using Selenium and Java for ONTRAPORT

### Quality Assurance Intern, Fortinet

Sunnyvale, CA

June 2015 – September 2015

- Developed FortiSwitch test cases from specifications into test plans using Python, Robot Framework, and IxNetwork
- Tested and improved the scalability of company devices by increasing the virtual packet size exponentially by implementing VLAN's and SVI's

## Projects

### Parallel Cholesky Factorization | April 2017 - Present

- Implementing parallelized version of the Cholesky Factorization method for systems of linear equations using C Sparse and Cilk

### Wanderlease | January 2017 – Present

- Co-founded business startup tackling problems in the current subleasing market in metropolitan cities
- Web application that integrates Facebook & PayPal authentication, Google Maps API, Zillow API for a subleasing marketplace
- Designed clustering algorithm for automated tenant matching

### GPU: All-Pairs Shortest Paths | February 2017 – March 2017

- Implemented parallelized as well as sequential versions of the Floyd-Warshall and the Recursive-Kleene algorithm in C and CUDA
- Benchmarked on NVidia 1060 and 1070s with up to 10,000 nodes and achieved up to 250x speedup between comparing sequential and parallel algorithms

### Novatooth | October 2016 – March 2017

- Won 2<sup>nd</sup> place at the 2017 summit.cs hosted by the UCSB CS department with mission to create more exposure on current insecurities of Bluetooth technology
- Developed a platform for Bluetooth technology that includes 3 hacking modules and a backend for data analytics
- Built upon Kali, Django, SQLite, Google Cloud API, AWS, d3.js