

CHARLIE LI

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Education

Bachelor of Science, Computer Science
The Pennsylvania State University

Expected December 2016

Experience

Information Technology Services, Pennsylvania State University *Lab Consultant*

August 2013–present

- Assisted users in the campus computer labs with various software and hardware malfunction questions
- Provided guidance for audio and video editing with iMovie/Final Cut Pro and Garageband
- Maintained the labs' condition for cleanliness
- Helped answer other lab consultants' questions when needed

College of IST, Pennsylvania State University *Learning Assistant*

August 2014–December 2015

- Assisted IST 250: Introduction to Web Design and Development twice, once per fall semester. Class focused on fundamental HTML, CSS, JavaScript
- Assisted IST 256: Programming for the Web, for Spring 2015, focusing on fundamental PHP and MySQL on the stack
- Both classes primarily online deliverables and assignments, with in-person assistance during scheduled class times and office hours
- Held office hours for four hours, consisting of three sessions per week
- Graded all assignments for all 40–43 students in IST 250, 27 students in IST 256

Capital One *Technology Development Intern*

June–August 2015

- Involved with two Agile teams: a network administration/maintenance team spread across all office locations, and a bank transaction website DevOps team based in Wilmington, DE
- Used Flask microframework and D3.js to automatically pull data from the network team's VersionOne kanban board for weekly upper management reports
- Embedded the above into a new group page for the network team on the company's Jive Software social intranet
- Corrected some small customer experience issues on the transaction site

IT Pros–Philadelphia *Data Analyst/Development Intern*

July–November 2014

- Used Flask microframework and Google Maps API to map a sample set of tech employers in Philadelphia area
 - Set up and maintained development server containing Apache httpd, git and CouchDB
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Hackathon projects

- **DragonHacks 2016:** AmeriToots – A system that heating oil/gas delivery drivers would use to monitor their customers' usage in order to make prompt replenishments and other emergency repairs as needed. Raspberry Pi as wi-fi access point, Arduino for replaceable tank/monitoring hardware, USB wi-fi dongle in a wok (dish antenna) on the truck.
 - **YHack 2015:** Kortana – A robotic car with a tipper and gripper to help disabled veterans put their shoes on. Passively listens for suggestions of going out to pick up, drive and place shoes at wheelchair level. Raspberry Pi on a robotic car kit.
 - **HackUMass 2015:** Excitare – An alarm clock blasting loud music and driving away, prompting the user to actually get out of bed and chase it down to shut it off. Raspberry Pi and speaker on the robotic car kit, Android app to modify Pi's crontab.
 - **HackGT 2015:** Built a webapp-controlled drip-type coffee maker/mixer. Ran a Flask instance on a Raspberry Pi to control three ground coffee dispensers that led into a filter.
 - **PennApps Spring 2015:** CritSim – A cycling sensor framework that transmits handlebar force (turn simulation) and wheel spin (instantaneous velocity and distance pedalled) data using a network daemon; demoed output with a D3.js simulation. Used two Arduinos plus sensors to gather data. Additional inputs, like Sensoria sock, can be added for more data; output can be Oculus/VR and even multiplayer
 - **Unhackathon 2014:** Coffeestop – A webapp, written in Python using the Flask microframework, Python GPX library, Yelp API, Google Maps API and ordi.in API, to find coffee shops, cafés, convenience stores, etc based on inputted GPS track. Optionally, users can order their food/drink for serving just-in-time upon arrival
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School activities

- Secretary, then webmaster, **Penn State Cycling Club** Built and maintained a new club website from scratch, using custom PHP (initially 5.1, now 5.3) paired with Twitter Bootstrap and now Zurb Foundation
- Webmaster director, **Engineering Orientation Network** – Built two websites for each of the two years served. First year used Twitter Bootstrap on manually-written HTML. Second year used Zurb Foundation and Python scripts to compile website