

What I wish I knew in comp 20

...

Josie Barth

Hi! I'm Josie Barth



I took comp20 fall 2016

Graduated from Tufts in 2018

Software Engineer at HubSpot

Big Data Infrastructure team

Overview

- A little about HubSpot & what I do there
- Journey from comp20 to first internship/full time job
- How Tufts prepares you for industry
- How Tufts doesn't prepare you for industry
- How to fill in those gaps
- Finding the right job for you

What does HubSpot do?

Mission statement: Help millions of organizations grow better

How: Build software and systems to empower small to medium-sized businesses

Secret sauce: Inbound methodology



NOT SURE IF



Inbound in practice





🔍 what dishwasher has|

🔍 what dishwasher has - Google Search

🔍 what dishwasher has **the best ratings**

🔍 what dishwasher has **the shortest wash cycle**

🔍 what dishwasher has **the best reviews**

🔍 what dishwasher has **the best warranty**

🔍 what dishwasher has **the least repairs**



er is

er is - Google Search

er is **the best**

🔍 what dishwasher is **the quietest**

🔍 what dishwasher is **best for hard water**

🔍 what dishwasher is **made in the usa**

🔍 what dishwasher is **best for me**

7 Best Dishwasher Reviews 2017

The Best Dishwashers for Clean, Streak-Free Dishes

Removing glassware from these racks is oddly delightful.

By The Good Housekeeping Institute Jan 4, 2018

97

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Shopping for a new dishwasher is daunting, so we did the dirty work for you. Many of the appliances ahead wowed in recent Good Housekeeping Institute Cleaning Lab tests — plus, we threw in the most

Dishwashers

Overview Ratings & Reliability Recommended Buying Guide

Dishwasher Buying Guide

Join the Clean Plate Club

Best Dishwashers for 2018

SAVE UP TO \$1,200 ON SELECT APPLIANCE PACKAGES

PROFILE

Best Products REVIEWS NEWS VIDEO HOW TO SMART HOME CARS DEALS

CNET Appliances Dishwashers Best Dishwashers for 2018 Updated Dec 21, 2017

Best Dishwashers for 2018

Our editors hand-picked these products based on our tests and reviews. If you use our links to buy, we may get a commission.

DISHWASHER REVIEWS BEST DISHWASHERS BUYING GUIDE

SAVE UP TO \$1,200 ON SELECT APPLIANCE PACKAGES

PROFILE

Ad feedback

Customer images

See all customer images

Most recent customer reviews

Amazon Customer

★★★★★ Dishes must be pre-rinsed. Works well if you have your water at 125 deg. and use liquid dishwasher detergent. Published 1 day ago

LuxyGo

★★★★★ Definitely worth its money so tired of washing dishes by hand! Very satisfied works well the only problem is our very large plates have a hard time fitting in it but we just turned a slight sideways and they fit well. Read more Published 3 days ago

Vicki B

★★★★★ Do not buy this product I wish I had read this review before I purchased this dishwasher. I had Danby's Previous model and it worked perfectly for 14 years. Read more Published 11 days ago

Tom P.

★★★★★ Great for small house hold this is very good machine, much better than I thought. I've been using this as I await my kitchen to be finish and we use it every day. Read more Published 12 days ago

Read reviews that mention

dishes machine quiet plates wash counter kitchen rinse cleans sink washing faucet dishwashers door dry detergent washer apartment

See more

Top customer reviews

Z. Scribner

★★★★★ Best of all the current countertops, but that's not saying much at all. May 23, 2017

Unfortunately, from my research on countertop dishwashers, this is the best of the bunch. It appears as though all countertops are manufactured by the same manufacturer, and then just appointed with slightly different electronics and faces to suit each re-branding OEM's needs. They're all almost exactly the same size, there's only about 2 or 3 variations on the racks, and they all appear to have the same door/placement. We had a Danby Designer before this and it recently gave up the ghost after 12 years of faithful service. I now wish we would have repaired that one, because none of the current models are anywhere near as good as that thing was.

Read more

The Pros:

- * This is the only model with a heater built in. "However," it doesn't really get that hot at 165F. Our last model had to settings for heat-- normal and hot-- and the hot setting would essentially steam everything away and scorch your hand if you touched glasses coming directly out after a cycle.
- * Quiet. I was honestly surprised by how quiet this thing is, and it's been probably the best feature improvement over older models.
- * Able to accommodate the tallest plates from all the other versions offered.
- * Has various settings (but, really, you're only going to use one or two).

The Cons:

- * Still not tall enough. Our last Danby Designer could easily hold our 11" dinner plates with room to spare. Now, if we want the dinner plates to be washed, we either have to put them in at 45 degree angles, load/unload everything else out, or we wash them by hand. This was a big bummer.

Read more

141 people found this helpful

Helpful Comment Report abuse

Back to HubSpot

HubSpot builds tools to help people market and sell the way consumers want to shop and buy. These tools include:

- Blogging
- Social Media
- Email
- Analytics
- Workflows and automation
- Contact management
- Reporting
- Chat
- The list goes on....

Where does my role fit into the picture

- Database Infrastructure
- Build tooling, automation, and monitoring for HubSpot's datastores
- Work with Apache open-source solutions for databases and data processing
 - HBase, Spark, and Hadoop
- Skillset: database knowledge, working with distributed systems, learning from a larger open-source community

How did I get here: My Tufts CS roadmap

- I had no prior CS experience before college (took comp11 my freshman spring)
- Sophomore fall applied for an internship at a company near my hometown (wasn't a huge reach, but a way to get my foot in the door)
 - Interviewed with: comp11, comp15
 - Interned with: above + comp40
- Junior fall applied to HubSpot for summer internship
 - Interviewed with: above + comp20, comp105 (programming languages)
 - Interned with: above + comp115 (databases) + comp120 (web engineering) + comp170 (computation theory)
- Accepted a full time offer at HubSpot at the end of my internship
 - Finished with: above + comp111 (operating systems) + comp160 (algorithms)

A note on classes

- No magic set of courses that is going to prepare you perfectly for your first job
- Take classes that are interesting to you
- Don't let the number of courses you've taken limit the opportunities you go after
 - It's okay to not feel ready or totally prepared
 - Trust your ability to learn

How Tufts prepares you for industry

- Learn how to solve large problems (comp40) and complex problems (comp105)
- How to collaborate with others (pair programming) and use resources (office hours, TAs)
- Learn how to learn (your classes are challenging and it's a lot of work, you learn how to adapt)

How Tufts does not prepare you for Industry*

- I would have not passed my coding interview at HubSpot without taking comp20
 - Hit a source API, transform the data according to spec, post your solution to another API
- Very little exposure with solving problems that don't have a clear spec or that aren't fully defined
- How to pick a stack and evaluate trade offs, system design
- How to use 3rd party tools and technologies, read documentation that isn't necessarily complete
- How to google, use stackoverflow, read articles, follow tutorials
- How to fail

*Comp20 is the exception

- Tufts CS courses teach you how to solve hard problems, but comp20 covers the bare minimum to get you started in industry
 - Client/Server relationships
 - Git & GitHub
 - APIs
 - JavaScript
 - Data persistence
 - Security
- Comp20 teaches you how to think about an entire system, use industry relevant tools, and how to fail (think: group project)
- There is no other professor more dedicated to your success than Ming

Emailing Mike Bayer (creator of Alembic)

Re: Creating a new schema name during migration with Alembic

Inbox



Josie Barth josie.barth@gmail.com via [googlegroups.com](#)
to [sqlalchemy-alembic](#)

Thu, Mar 2, 2017, 10:26 AM



One clarifying edit:

Regarding my example table,

```
__table_args__ = {'u'schema': 'OurHouse'}
```

should not be commented out. I was playing around with the migration and I got it to work when I took out all references to the schema 'OurHouse' that I wanted to attach my tables to. The tables by default migrated to the "public" schema without issue. Further, if I manually added the schema 'OurHouse' to PostgreSQL before attempting to migrate, I was able to then migrate my tables to the schema without issue. My question still remains if it's possible to create a new schema name during migration so the tables can also be created without error. Thanks!



mike bayer [<mike_mp@zzzcomputing.com>](mailto:mike_mp@zzzcomputing.com)
to [sqlalchemy-alembic](#)

Thu, Mar 2, 2017, 12:35 PM



You want to just create the schema, `op.execute("CREATE SCHEMA OurHouse")`

Deploying Failure

Inbox x

Tue, Mar 14, 2017, 9:33 PM

☆

Josie Barth

Hey Ming, Any quick suggestions as to why I might be failing? I have an upadted requirements.txt file, a runtime.txt file specifying python 2.7.13, and a buildp

11

Ming Chow

Some

a WTF error strikes again

Inbox x

Tue, Mar 14, 2017, 11:46 PM

☆

Ming

to frar

Hello

It's 12

1. Adc

2. Rer

I kept

Josie Barth <josie.barth@gmail.com>

to Ming, Ming

Hi Ming!

So I know you said to "not work on your project", but of course, I'm doing a little work, and maybe as karma I've run into a WTF error. So somewhere al
an error in a GET route for logging in, but just on my computer. This is the same code that is deployed to our site and works just fine for the login (no cc
<https://ourhouse-stage.herokuapp.com/>
on is the package file for Node.js apps)
Rachael has also tried pulling the code from my branch and ran it without errors (which makes sense, as I haven't touched that part of the code)
I've tried deleting my virtual environment and creating a new one reinstalling all the dependencies, and still the same error.
So here's what happening, when I try logging in (with a valid or invalid username email), I get 500 internal server errors:

localhost:5000

Virtual Grade Report

Preserve log

Python 2.7.13 using the Jinja2 template engine. Be sure to precompile your .jinja2 templates -> http://facebook.github.io/jinja2/docs/1.0/#the-jinja2-loader-class

How to bridge the gap between school and industry

- Take comp20 (you're already here, so check!)
 - Try to convince Ming to teach comp120 too if he isn't ;)
- Even if you're a still early in your studies, apply for internships as soon as possible (even if you don't feel ready)
 - It doesn't have to be super flashy, but getting some experience is key, OR
 - Build something for someone else (a website, an app, etc), OR
 - Talk to your professors about research!
- Work on projects in groups

Finding the right job for you

- Things to consider
 - Company size
 - Team structure
 - Growth & Impact
- Tips for applying

Company size

Small

wear lots of hats

(maybe) easier to make an impact

fewer boundaries for new technologies

iterate quickly

fewer people to learn from

Big

more specialization and expertise

(maybe) harder to make an impact

(likely) established infrastructure

deliberate decisions

(possibly) stronger mentorship

Team Structure

The people who you work with day to day will likely have the biggest impact on your experience. Questions to consider:

- Team size?
- What your team owns: End to end? Small parts?
- Mentorship? Resources for learning?
- What is dev process like and how are tasks distributed?
- Moving teams?

Growth and Impact

- Will the skills you gain be useful elsewhere
- What're your career growth paths
 - Individual contributor
 - Tech lead/people management
- How much autonomy do you have over a product
- What impact does that product have

Tips for Applying

After spending 3 days recruiting for HubSpot at Grace Hopper, here are my tips:

- Don't lie on your resume, it will bite you during an interview
 - If you aren't comfortable answering questions about a technology on your resume, don't include it
- When expressing interest about working at a particular company, be specific as to *why* that company
 - You will be remembered if you do a little research
- If you have a connection, reach out!
 - Recruiters heavily rely on referrals
 - Engineers are expensive to recruit - employees are often given incentive to help with this process

And finally I couldn't end this talk without pitching...

Why HubSpot?

Learn, Grow, Impact



ES6

Awesome People





Thank you!

Questions?