GRACE HOPPER
CELEBRATION

ANITA
B.ORG

Bill.com's Excellent Adventure into Machine
Learning

#GHC19

Agenda:

- Who am I

- What is Bill.com

- A Bill.com user story

- The "Intelligent Virtual Assistant" origin story, powered by MacBook Pro and pizza

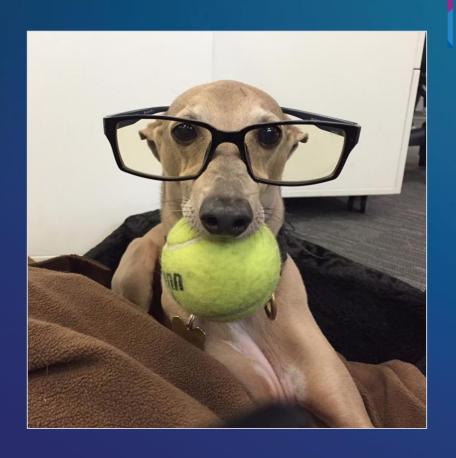- What's worked, and what hasn't

- And, what's next

Hi! I'm Chung!

- BA in English from UC Berkeley - 2003

- Worked in customer-facing roles for ~13 years

- Hackbright Academy - September 2016

- Software Engineer at Bill.com - February 2017

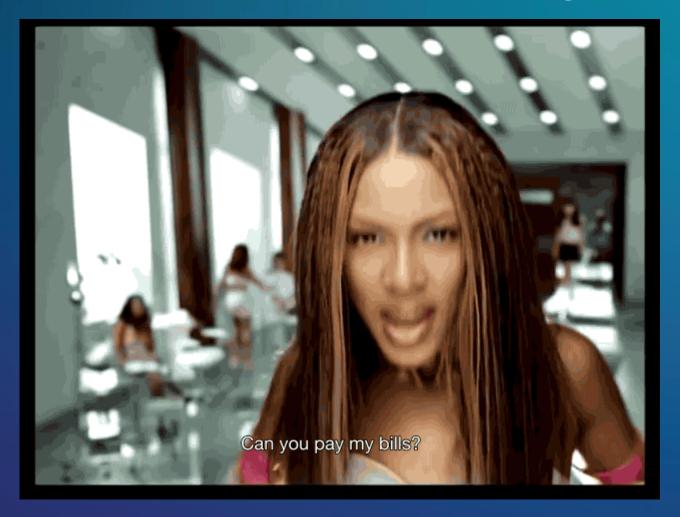- Unapologetically love dogs, puns, and gifs

- We offer a platform for our customers to manage their bills and make payments
- HQ in Palo Alto, California and office in Houston, Texas
- $70B processed annually
- Process over 60M bills and invoices annually
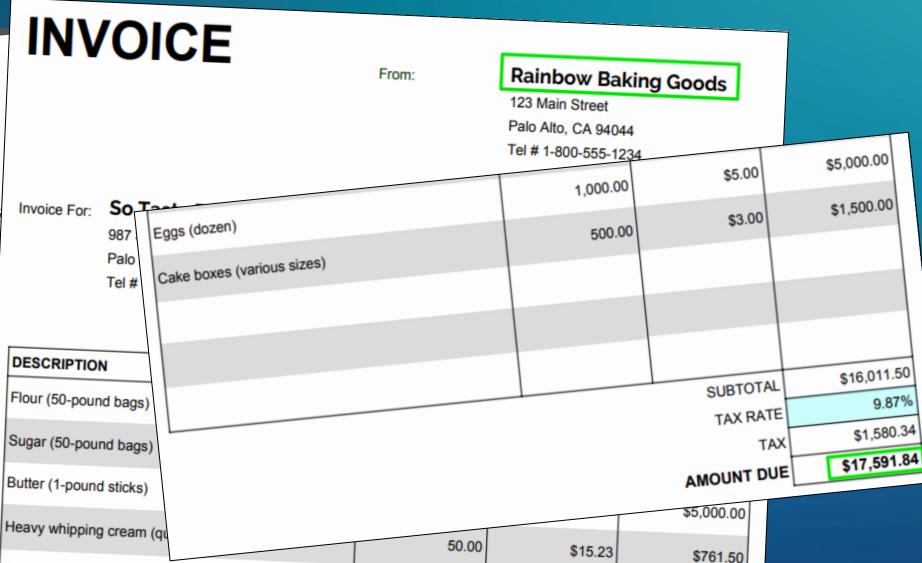- Our company dog is Brown, an Italian Greyhound

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A sample bill

Bill.com®

INVOICE

From: **Rainbow Baking Goods**

123 Main Street
Palo Alto, CA 94044
Tel # 1-800-555-1234

Invoice For: **So Tast...**

987

Palo

Tel #

DESCRIPTION			
Eggs (dozen)	1,000.00	$5.00	$5,000.00
Cake boxes (various sizes)	500.00	$3.00	$1,500.00
Flour (50-pound bags)			
Sugar (50-pound bags)			
Butter (1-pound sticks)			
Heavy whipping cream (qu...	50.00	$15.23	$761.50
Eggs (dozen)	1,000.00	$5.00	$5,000.00

SUBTOTAL	$16,011.50
TAX RATE	9.87%
TAX	$1,580.34
AMOUNT DUE	**$17,591.84**

INVOICE

From:
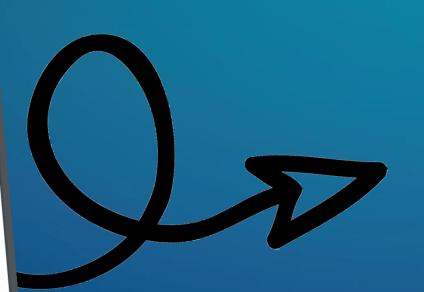
Invoice For: **So Tasty Dough**
987 Sweet Street Suite 50
Palo Alto, CA 94044
Tel # 1-888-555-9876

Invoice ID
Issue Date
Due Date
Terms

DESCRIPTION	QUA...
Flour (50-pound bags)	
Sugar (50-pound bags)	
Butter (1-pound sticks)	
Heavy whipping cream (quart)	
Eggs (dozen)	
Cake boxes (various sizes)	

Notes
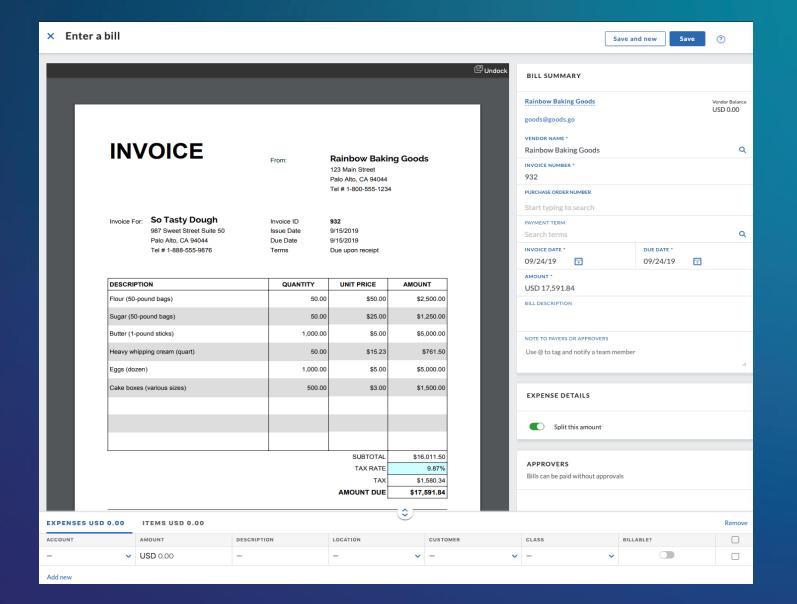
Comments or special instructions for your clients.
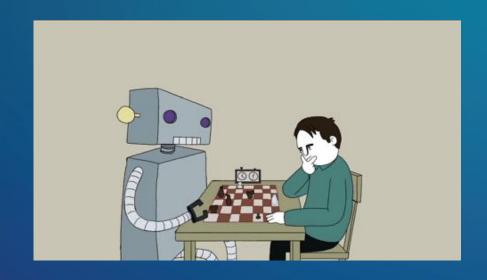
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Running a business without Bill.com

...and with Bill.com

* Doge not included; please BYO doge

Using this form

#GHC19
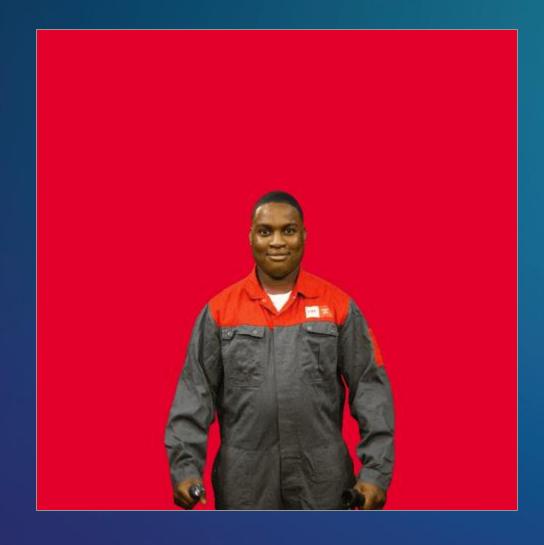
The "Intelligent Virtual Assistant" (IVA) Origin Story

Theory: "First 10"

- Important data happens in the first 10 lines of the document

Conclusion: 🙁

Theory: "YOMO"

- Each invoice gets a fingerprint generated based on words and position of words

Conclusion: 🎉

Computing power over the years:

Bill.com®

**20 hours,
run 1 model**

**20 hours,
run n-models**

AWS

Bill.com®

To wrap it all up:

- Invoices come in a lot of different patterns
- Google OCR
- Computing power is key

Super duper important:
1. We all start somewhere
2. Have fun!

Visit us at booth 357 (Career Fair) & booth T1833 (Tech Showcase) & we're interviewing!
Actively hiring for engineering roles:
data, manager, QA, and software.

https://www.bill.com/about-us/careers/

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/company/bill-com

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