

# TECHNICAL COMMUNICATION

The most important skill you've overlooked

Krin Juangbhanich

Software Engineer (AWS)

UWA Graduate (2019)



*'In the spirit of reconciliation Amazon acknowledges  
the Traditional Custodians of country throughout Australia  
and their connections to land, sea and community.*

*We pay our respect to their elders past and present  
and extend that respect to all Aboriginal and Torres Strait Islander peoples today.'*



# ABOUT ME



# ABOUT ME

- Software engineer at *AWS* in Sydney for 3 years.
- Previously worked at startups and in gaming.
- Graduated from UWA (Computer Science) in 2019.
- Conducted technical interviews for 100+ candidates.

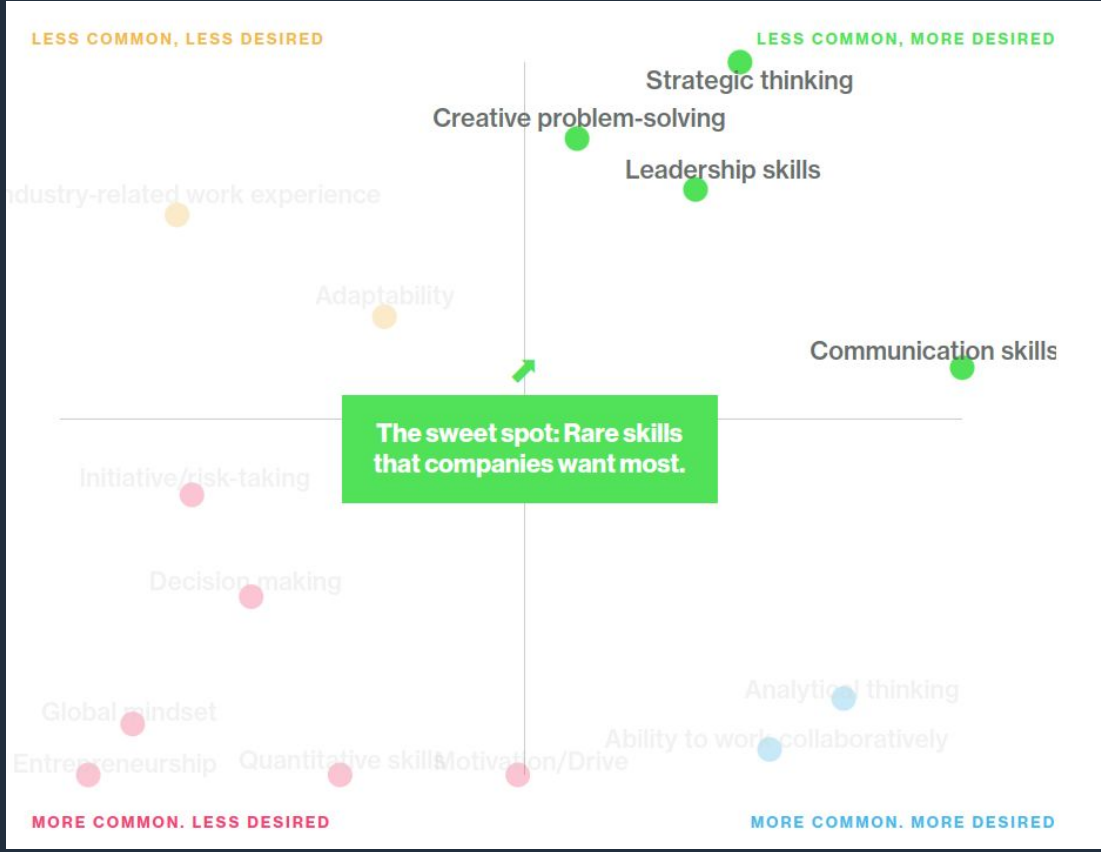
# TECHNICAL COMMUNICATION

The most important skill you've overlooked

...is a pretty bold claim

**MORE THAN 50% OF TECH RECRUITERS  
THINK "COMMUNICATION SKILLS" ARE  
THE MOST IMPORTANT NON-TECHNICAL  
SKILL**

Bloomberg Job Skills Report 2015



# AGENDA

- What is technical communication?
- Empowering your team
- How to ask questions the right way
- Improve your documentation and code



# WHAT IS TECHNICAL COMMUNICATION?

Please take a moment to write down what  
you think it means ( yes, right now! )

# WHAT IS TECHNICAL COMMUNICATION?

- Putting ideas into words
- Talking to your team
- Asking technical questions
- Speaking, writing and coding

# WHO IS YOUR AUDIENCE?

- Engineers/Scientists
- Managers
- Customers
- Yourself!

**WHY DOES IT MATTER?**

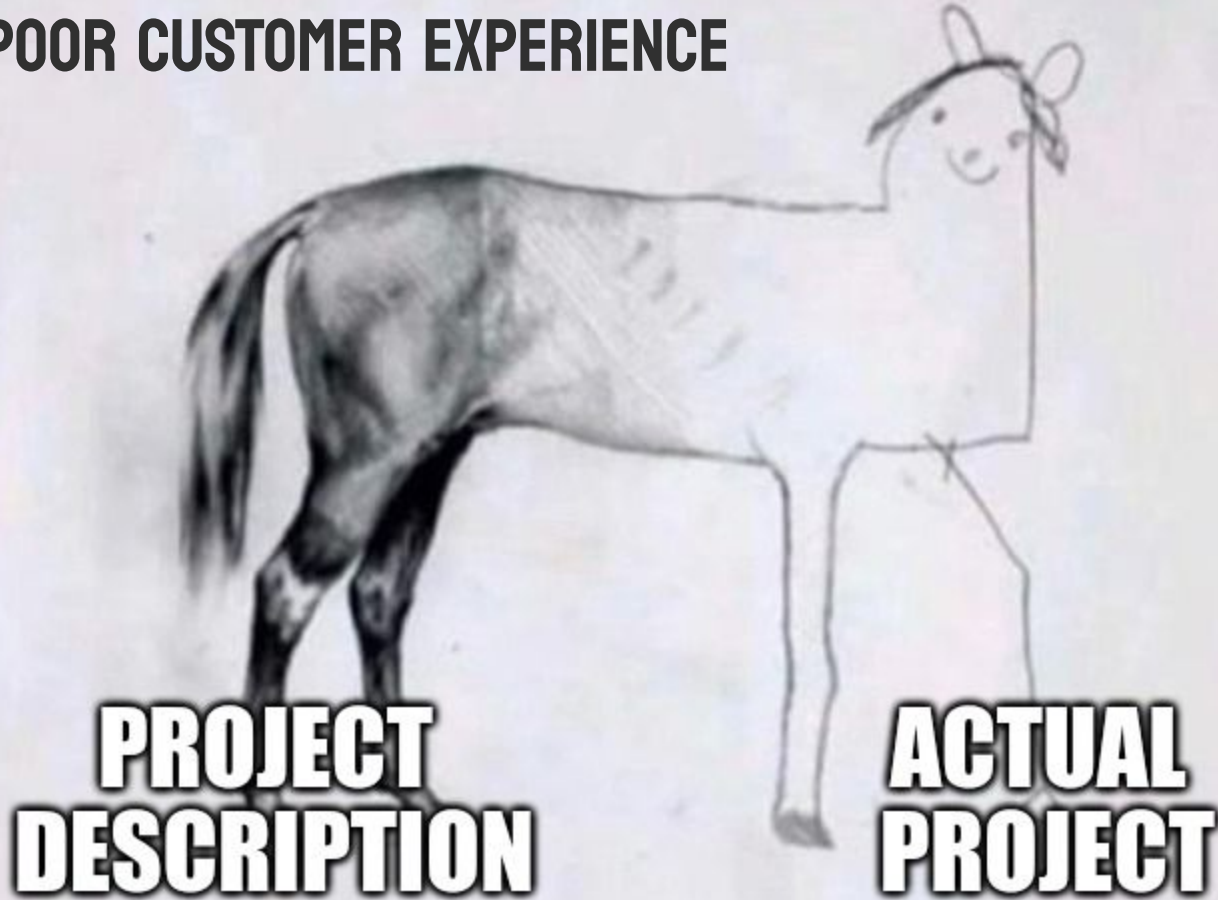
# CONSEQUENCES OF POOR COMMUNICATION



# POOR TEAM VISIBILITY



# POOR CUSTOMER EXPERIENCE



**PROJECT  
DESCRIPTION**

**ACTUAL  
PROJECT**





**HOW YOUR CODE LOOKS AFTER 6 MONTHS**

Your success in life will be determined largely by your ability to speak, your ability to write, and the quality of your ideas, in that order.

**Dr Patrick Winston, MIT**  
from "How to speak"

# ACTIONABLE INSIGHTS

- Empowering your team
- How to ask questions the right way
- Improve your documentation and code



# **I. EMPOWERING YOUR TEAM**

# EMPOWERING YOUR TEAM

- Repeat ideas back, in your own words
- Clarify assumptions
- Use simpler, fewer words
- Keep your team updated
- Slow down

# REPEAT IDEAS BACK, IN YOUR OWN WORDS

Me: "Let's put these coordinates into a grid."

You: "So you want to model this as a 2D array?"

# CLARIFY ASSUMPTIONS

Me: "This API will add a new user to the database."

You: "I assume we're generating a UUID for each user?"

# USE SIMPLER, FEWER WORDS

**Don't say:**

"An analysis of this data was conducted 2 weeks prior."

**Consider instead:**

"This data was analysed two weeks ago."



# USE SIMPLER, FEWER WORDS PT. 2

**Don't say:**

"Essentially, what S3 does is it lets you store files."

**Consider instead:**

"S3 lets you store files."

# USE SIMPLER, FEWER WORDS PT. 3

**Don't say:**

"Our heuristics indicate that this feature will decrease the overall latency of the process."

**Consider instead:**

"We think this will make it faster."

# KEEP YOUR TEAM UPDATED

**Don't say:**

(Nothing)

**Consider instead:**

"Haven't had a chance to work on X yet.

Will try again by Y."

**SLOW DOWN!**

Allow other people to digest your ideas.

# RECAP: EMPOWERING YOUR TEAM

- Repeat ideas back, in your own words
- Clarify assumptions
- Use simpler, fewer words
- Keep your team updated
- Slow down

## **2. HOW TO ASK QUESTIONS THE RIGHT WAY**

NEVER HAVE I FELT SO  
CLOSE TO ANOTHER SOUL  
AND YET SO HELPLESSLY ALONE  
AS WHEN I GOOGLE AN ERROR  
AND THERE'S ONE RESULT  
A THREAD BY SOMEONE  
WITH THE SAME PROBLEM  
AND NO ANSWER  
LAST POSTED TO IN 2003

WHO WERE YOU,  
DENVERCODER9?

WHAT DID YOU SEE?!



# DON'T JUST SAY HELLO

Don't say:

"Hello."

Consider instead:

"Hello, I'm trying to do X and I'm running into error Y."



**NOHELLO.COM**

# EXPLAIN YOUR OBJECTIVE

**Don't say:**

"How do I randomize a number between 0 and 10M?"

**Consider instead:**

"How do I generate a random unique ID for my user?"

# INCLUDE / ISOLATE THE RELEVANT DETAILS

**Don't say:**

"I'm getting a Null Pointer Exception."

**Consider instead:**

"I'm getting a Null Pointer Exception on resource X. I'm expecting Y, and here is a link to my code."

# WHAT HAVE YOU TRIED?

**Don't say:**

"Help!"

**Consider instead:**

"Help! I've tried X and Y. I'm thinking to try Z next."

# HOW TO ASK QUESTIONS THE RIGHT WAY

- Don't just say "hello"
- Explain your objective
- Include / isolate relevant details
- What have you tried?

# **3. IMPROVE YOUR DOCUMENTATION AND CODE**

# SIGNAL YOUR INTENT

**Don't write:**

```
domain = userEmail.split("@")[-1]
```

**Don't write:**

```
domain = splitAtSign(userEmail)
```

**Consider instead:**

```
domain = getDomain(userEmail)
```

**NAMING IS HARD**



There are only two hard things in Computer Science: cache invalidation and naming things.

**Phil Karlton, Xerox PARC**

# NAMING

FUNCTIONS SHOULD OFTEN BE VERBS

Don't write:

`left(x)`

Consider instead:

`moveLeftBy(x)`

# NAMING

**ALWAYS INCLUDE UNITS**

**Don't write:**

```
delayTimeout = 10
```

**Consider instead:**

```
delayTimeoutSeconds = 10
```

# NAMING

**AVOID NAMES THAT ARE TOO GENERIC OR AMBIGUOUS**

**Don't write:**

```
runProcess(video)
```

**Consider instead:**

```
captureImage(video)
```

```
extractFeatures(image)
```

```
uploadToDatabase(features)
```

**USE MARKDOWN**

Markdown is a lightweight markup language that you can use to add formatting elements to plaintext text documents.

# README AS PLAIN TEXT

## Code Translator App

This app will translate a piece of code (provided as a string or a file) into human-readable English.

## Installation:

```
pip install code_translator
```

## Getting Started:

```
from code_translator import translate
translate("my_module.py")
```

# README WITH MARKDOWN

## # Code Translator App

This app will translate a piece of code (provided as a string or a file) into human-readable English.

## ### Installation

```
```bash
pip install code_translator
```
```

## ### Getting Started

```
```python
from code_translator import translate
translate("my_module.py")
```
```



# RENDERED MARKDOWN

## Code Translator App

This app will translate a piece of code (provided as a string or a file) into human-readable English.

### Installation

```
pip install code_translator
```

Shell

### Getting Started

```
from code_translator import translate  
  
translate("my_module.py")
```

Python

# MARKDOWN IS EVERYWHERE

React

license MIT

npm v18.2.0

circleci passing

PRs welcome

React is a JavaScript library for building user interfaces.

- **Declarative:** React makes it painless to create interactive UIs. Design simple views for each state in your application, and React will efficiently update and render just the right components when your data changes. Declarative views make your code more predictable, simpler to understand, and easier to debug.
- **Component-Based:** Build encapsulated components that manage their state, then compose them to make complex UIs. Since component logic is written in JavaScript instead of templates, you can easily pass rich data through your app and keep the state out of the DOM.
- **Learn Once, Write Anywhere:** We don't make assumptions about the rest of your technology stack, so you can develop new features in React without rewriting existing code. React can also render on the server using Node and power mobile apps using [React Native](#).

[Learn how to use React in your project.](#)

# IMPROVE YOUR DOCUMENTATION AND CODE

- Signal your intent
- Be deliberate about naming
- Use Markdown

# RECAP

- What is technical communication?
- Empowering your team
- How to ask questions the right way
- Improve your documentation and code

**AMAZON IS HIRING!**

[www.amazon.jobs](http://www.amazon.jobs)

# Business teams

Amazon Devices

Amazon Web Services

Amazon Marketplace

Business Development

eCommerce

Retail

Kindle, Digital Content and

Publishing

Worldwide Operations and Customer

Service

Amazon Studios



# Our roles and application



# Internship Opportunities

## Tech

- Software Development Engineers
- Network Development Engineer
- Solutions Architect
- Professional Services/Cloud Associates
- Applied Scientist Intern

## Non-Tech

- Sales
- Marketing Specialist
- Program Manager
- HR Intern
- Area Manager – Fulfilment Centre
- Finance/ WHS/Logistics

# Graduate Opportunities

## Tech

- Tech U Graduate Program
  - Graduate Technical Account Manager
  - Technical Trainer
  - Associate Customer Solutions Manager
- System Development Engineer
- Network Development Engineer
- Software Development Engineer
- Cloud Support Associate
- Professional Services Consultant
- Solutions Architect

## Non Tech

- Next Generation/ Sales Academy
- Retail Vendor/E-Commerce/Account Managers
- Human Resources
- Marketing





# Our Application Process



# Eligibility Requirements

Candidates must meet the below eligibility requirements in order to be considered for our Programs:

- ✓ Be an Australian citizen or permanent resident or New Zealand citizen at the time of application
- ✓ For Graduate applications, candidates must be in their final year of university undergraduate or postgraduate degree or have completed their studies in the last 24 months
- ✓ For Summer Intern applications, candidates must be in their penultimate (second last) year of a university of their undergraduate or postgraduate degree



# Stay connected with us!



Inside Amazon



Inside Amazon



@AmazonNews



Amazon



The Amazon Blog

Student Programs email: [anzcampus@amazon.com.au](mailto:anzcampus@amazon.com.au)





**GOOD LUCK!**

juangbha@amazon.com