# Sample LaTeXDocument

Jotham Wong Yi Shuen

3 September 2024

# Contents

# 1  Spaces

It does not matter whether you enter one or several spaces after a word.

An empty line starts a new paragraph.

Forcing a linebreak
Ooga BOOGA

The diacritic $\hat{j}$ vs the ˆ

# 2  Section

## 2.1  Subsection

### 2.1.1  Subsubsection

Cannot go any lower.

### unnumbered subsubsection

I have no number!

# 3  Font Styles

We can change fonts using the following commands, *Emphasized*, `Monospaced Font`, Small Capitals, UPPERCASE

# 4  Font Size

Within the same scope, we can change the font size as follows me is tiny, me is ooga, smally, normal, OOGA BOOGA, OOGA BUNGA

# 5  Non-breaking space

We cud use this in math equations.

Compare the two lines below

$f(x) = x^2$    for$x > 0$

$f(x) = x^2$    for $x > 0$

# 6 Line Spacing

Jotham Wong
Jotham

Wong JothamWong

This paragraph has

huge gaps

between lines.

# 7 Quote-marks

'quote' vs "quote"

# 8 Paragraph Alignment

I am flushed left.

<div align="right">I am flushed right.</div>

<div align="center">Hello I am centered</div>

# 9 Verbatim

We begin the verbatim environment.

```
The verbatim environment
      simply reproduces every
character you input,
including all s p a c e s!
```

# 10  Code Blocks

Using `minted` package to write code blocks.

```python
# This is python code
def factorial(n):
    return n == 1 ? 1 : n * factorial(n-1)
```

```java
// This is java code
public int factorial(int n) {
    if (n == 1) {
        return 1;
    } else {
        return n * factorial(n-1);
    }
}
```

Notice the syntax highlighting. (Basically verbatim + syntax)

# 11  Math fun

Short hand equations:
$$e^{i\pi} + 1 = 5$$

The equivalent with explicit environment command (and numbered equation)

$$e^{i\pi} + 1 = 0 \tag{1}$$

## 12   Citing stuff

LATEXis a set of macros built upon TEX[1].

# References

[1] Donald E. Knuth. *The TEX Book*. Addison-Wesley Professional, 1986.