

# Healthier ❤️ & Happier 😊 Hands 🙌

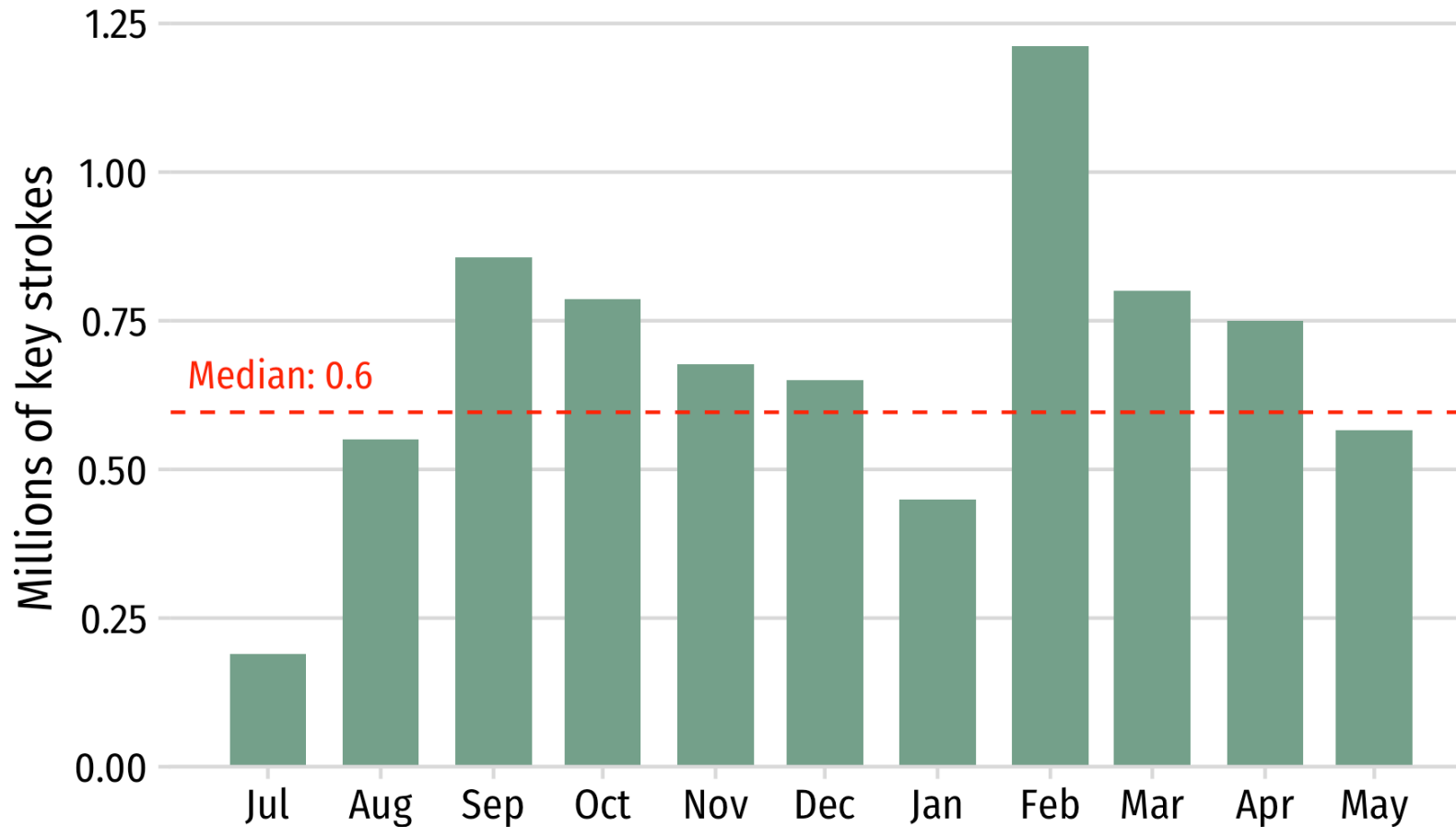
## Software and Hardware Solutions for More Ergonomic Typing

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2025 OSCON @ GWU

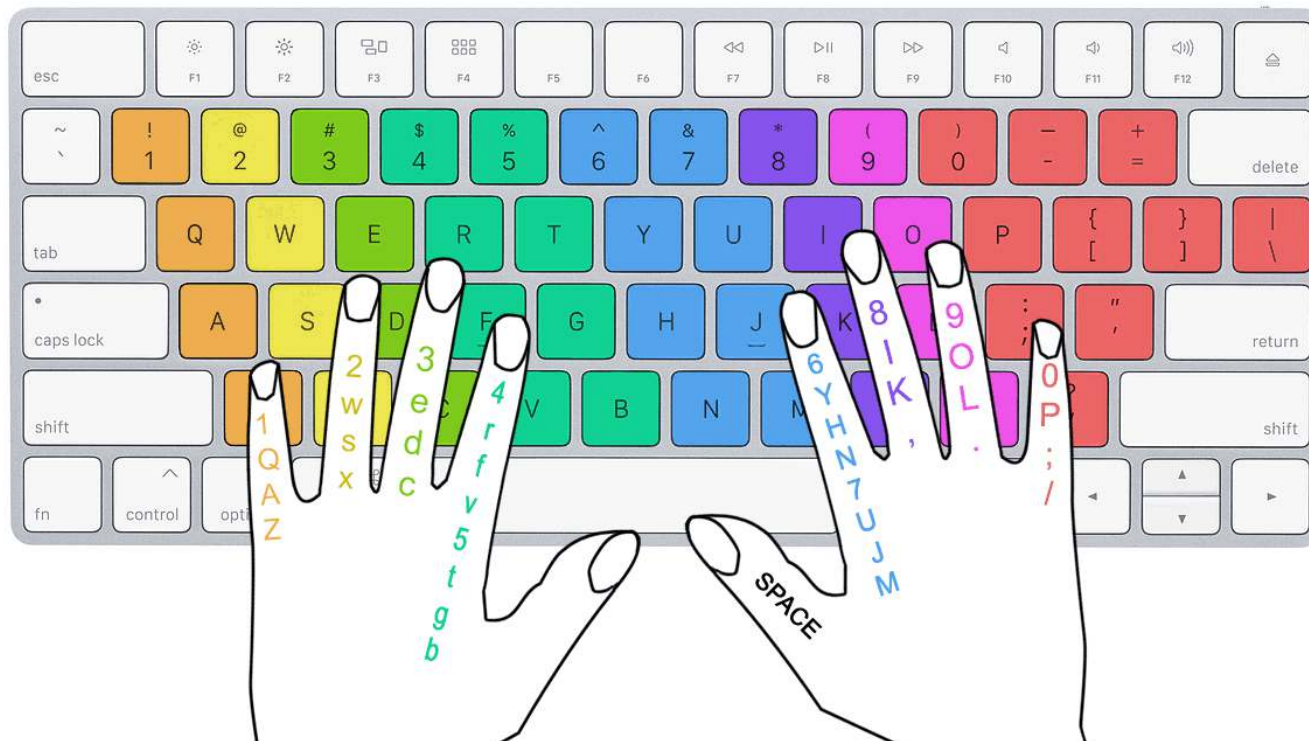


# I type ~7 million key strokes per year

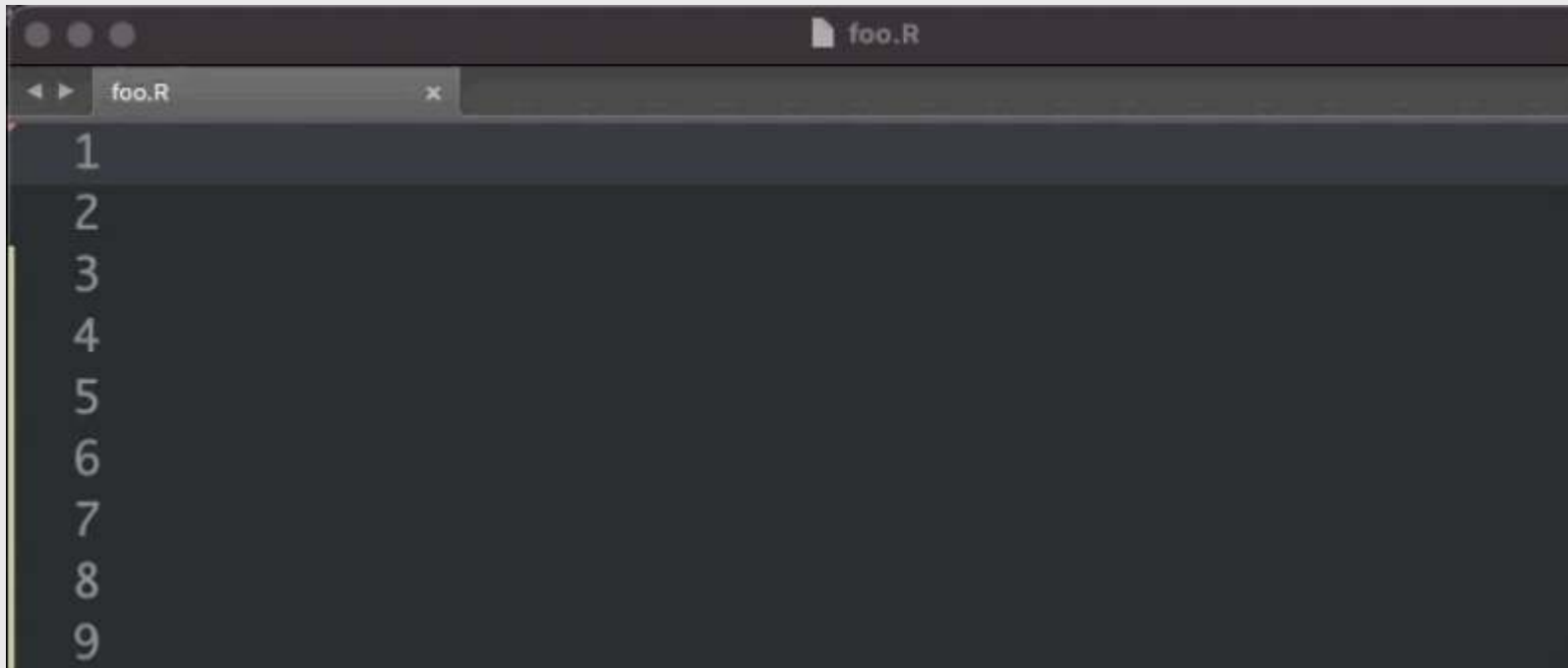


# Tip #1: Practice Touch Typing

<https://www.keybr.com/>



# Tip #2: Use a text expander like *espanso*



See my post on espanso at <https://www.jhelvy.com/blog>

# Tip #3: Use custom keyboard layers

## Base layer

1234567890  
qwertyuiop  
asdfghjkl'  
zxcvnm,./



## Shift layer

!@#\$%^&\*()  
QWERTYUIOP  
ASDFGHJKL"  
ZXCVBNM<>?

# Tip #3: Use custom keyboard layers



# Example: **Caps Lock Layer**

**Cut, Copy, Paste**      **Navigation**



**Forward / Back Delete**

# Tip #3: Use custom keyboard layers

Mac

<https://karabiner-elements.pqrs.org/>



Windows

<https://www.autohotkey.com/>





# Tip #4: Use a split keyboard



# Reduce **Ulnar Deviation**



# Reduce **Forearm Pronation**



# Think of your keyboard as a medical device



KINESIS Freestyle 2  
**\$89.00**



Logitech - ERGO K860  
**\$129.00**



Average cost of glasses  
**\$242.00**

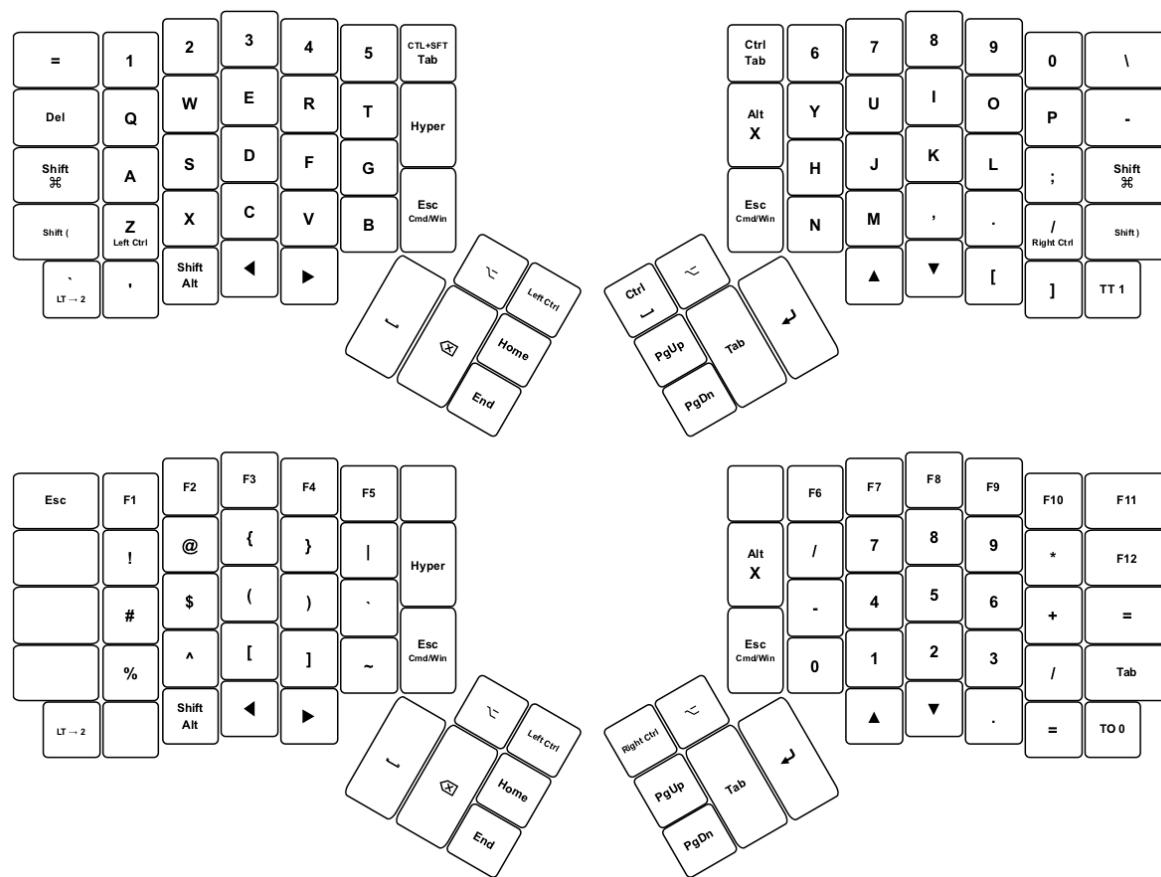
# Build Your Keyboard With Open Source Tools!



Iris (~\$200.00), Powered by [QMK Firmware](#)



# Use a split keyboard ***that is programmable***



**Tip #1:** Practice Touch Typing

**Tip #2:** Use a text expander like *espanso*

**Tip #3:** Use custom keyboard layers

**Tip #4:** Use a split keyboard

My Iris Keyboard:



# Thanks!



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