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Christoph Pickl @ **AndroidHeads** - 1.2.2018

Free  and  by 

# About

- **Christoph Pickl**

- Computer Science, Philosophy
- Shiatsu Practitioner, Taiji Teacher

- **"Conservative" Backend Dev**

- Started with Java 1995 (in ❤️ ever since)
- Currently employed at Erste Group IT

- **Community Work**

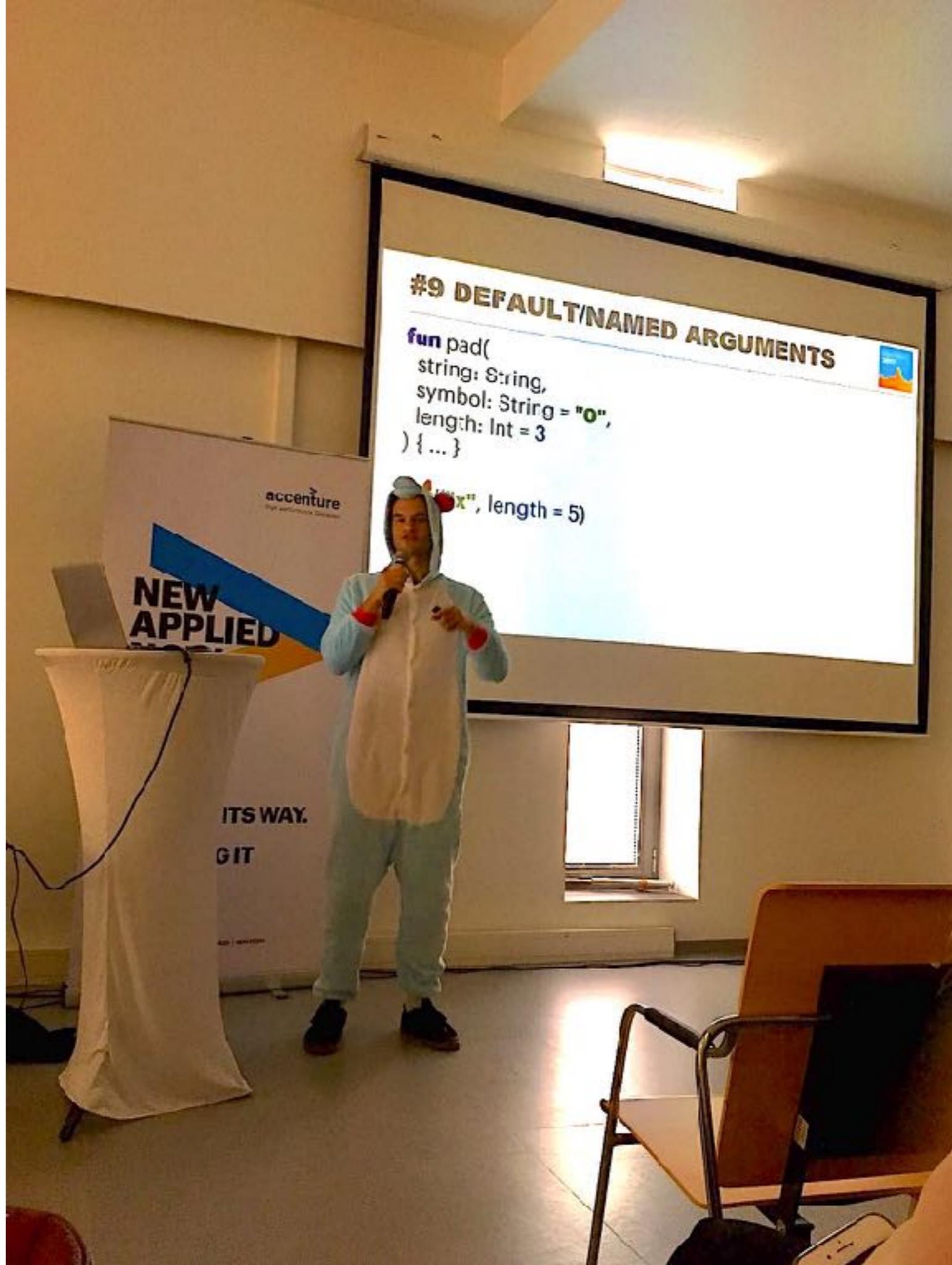
- Kotlin Vienna Usergroup (currently)
- Java Student User Group (formerly)



**Why the 🦄?**

Don't  
take  
yourself  
too  
seriously

...





...  
and  
be a  
some  
times.



(bitch)

# HATERS GONNA





otlin

# Facts

- **Statically typed, hybrid** language for the JVM
- Fully **interoperable** with Java
- Compiles to **JavaScript / native code**
- **Open source** compiler and tools

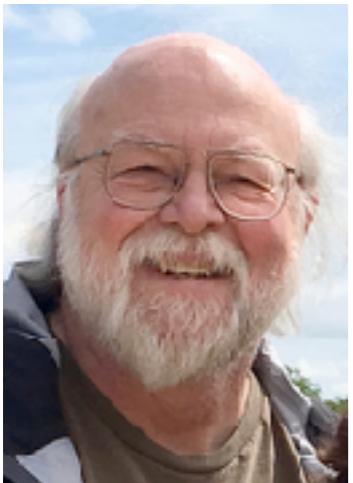


**BUT WHY DO WE NEED**

**YET ANOTHER JVM LANGUAGE**



*"Most people talk about Java the language,  
and this may sound odd coming from me,  
but I could hardly care less.  
At the core of the Java ecosystem is the JVM."*



**James Gosling,**

Creator of the Java Programming Language (2011, TheServerSide)



# Reasons

- Write more **concise** code
  - Less verbose, still not too dense
  - "*Scala for ~~dummies~~ the masses*"
- **Backed** by a big company
  - Superb tooling support (IntelliJ)
- Feels like **Java 2.0**



# Reasons ctd.

- Google officially supported language for Android
- No more `findViewById()`
- Great tooling support
- Runs even on old Androids (Java 1.6)
- Typesafe intents
- *... and much much more ...*



**Null safety**

**Reified Generics**

**Default Arguments**

**Extension functions**

**Type inference**

**Smart casts**

**Named Arguments**

**Lambdas**

**Data classes**

**Properties**

**Sealed classes**

**Final by default**

# Nullness

```
val maybe: String? = null
```

```
maybe.length // COMPILE ERROR!
```

```
maybe?.length // type is Int?
```

```
maybe?.length ?: -1 // type is Int
```

```
maybe!!.length // I don't care
```

```
if (maybe != null) {  
    maybe.length // smart cast to String  
}
```

I DON'T ALWAYS CODE IN  
JAVA



BUT WHEN I DO, IT'S A  
NULLPOINTEREXCEPTION

generator.net

# Data



```
public class Person {  
    private final String name;  
    private final int age;  
  
    public Person(String name, int age) {  
        this.name = name;  
        this.age = age;  
    }  
  
    public String getName() {  
        return name;  
    }  
  
    public int getAge() {  
        return age;  
    }  
  
    public boolean equals(Object other) {  
        return ...;  
    }  
  
    public int hashCode() {  
        return ...;  
    }  
  
    public String toString() {  
        return ...;  
    }  
}
```



```
data class Person(  
    val name: String,  
    val age: Int  
)
```

# Nifty

```
// extension functions
// =====
fun String.containsWhitespace() =
    StringUtils.containsWhitespace(this)
"foo".containsWhitespace()

// named & default arguments
// =====

fun <T> Iterable<T>.joinToString(
    separator: CharSequence = ", ", prefix: CharSequence = ""
): String

listOf("a", "b").joinToString(prefix = "- ")

// lambdas
// =====

listOf(1, 2, 3).filter { it % 2 == 0 }.map { it * 100 }
```

# Libs

- Anko
- Butterknife → Kotterknife
- Espresso → Kakao
- ... and many more at awesome-kotlin



# Anko

```
class AnkoUI : AnkoComponent<AnkoActivity> {  
    override fun createView(ui: AnkoContext<AnkoActivity>) =  
        with(ui) {  
            verticalLayout {  
                val name = editText()  
                button("Say Hello") {  
                    onClick { ctx.toast("Hello, ${name.text}!") }  
                }  
            }  
        }  
}
```



```
class AnkoActivity : AppCompatActivity() {  
    override fun onCreate(...) {  
        super.onCreate(...)  
        AnkoUI().setContentView(this)  
    }  
}
```

# Kotter

```
class ButterActivity : Activity() {  
    @BindView(R.id.title) lateinit var title: TextView  
}
```



```
class KotterActivity : Activity() {  
    val title: TextView by bindView(R.id.title)  
    val details: TextView? by bindOptionalView(R.id.details)  
    val views: List<TextView> by bindViews(R.id.x1, R.id.x2)  
}
```

# Kakao

```
onView(allOf(withId(R.id.price_item),  
    hasDescendant(withText("Standard Rate")))).check(  
    matches(withEffectiveVisibility(Visibility.VISIBLE)))
```

```
class FormScreen : Screen<FormScreen>() {  
    val email = KEditText { withId(R.id.email) }  
    val submit = KButton { withId(R.id.submit) }  
}  
screen {  
    email {  
        hasText("christoph@pickl.com")  
    }  
    submit {  
        click()  
    }  
}
```



# Meet

meetup.com

Create a Meetup Log in Sign up

## Kotlin Vienna

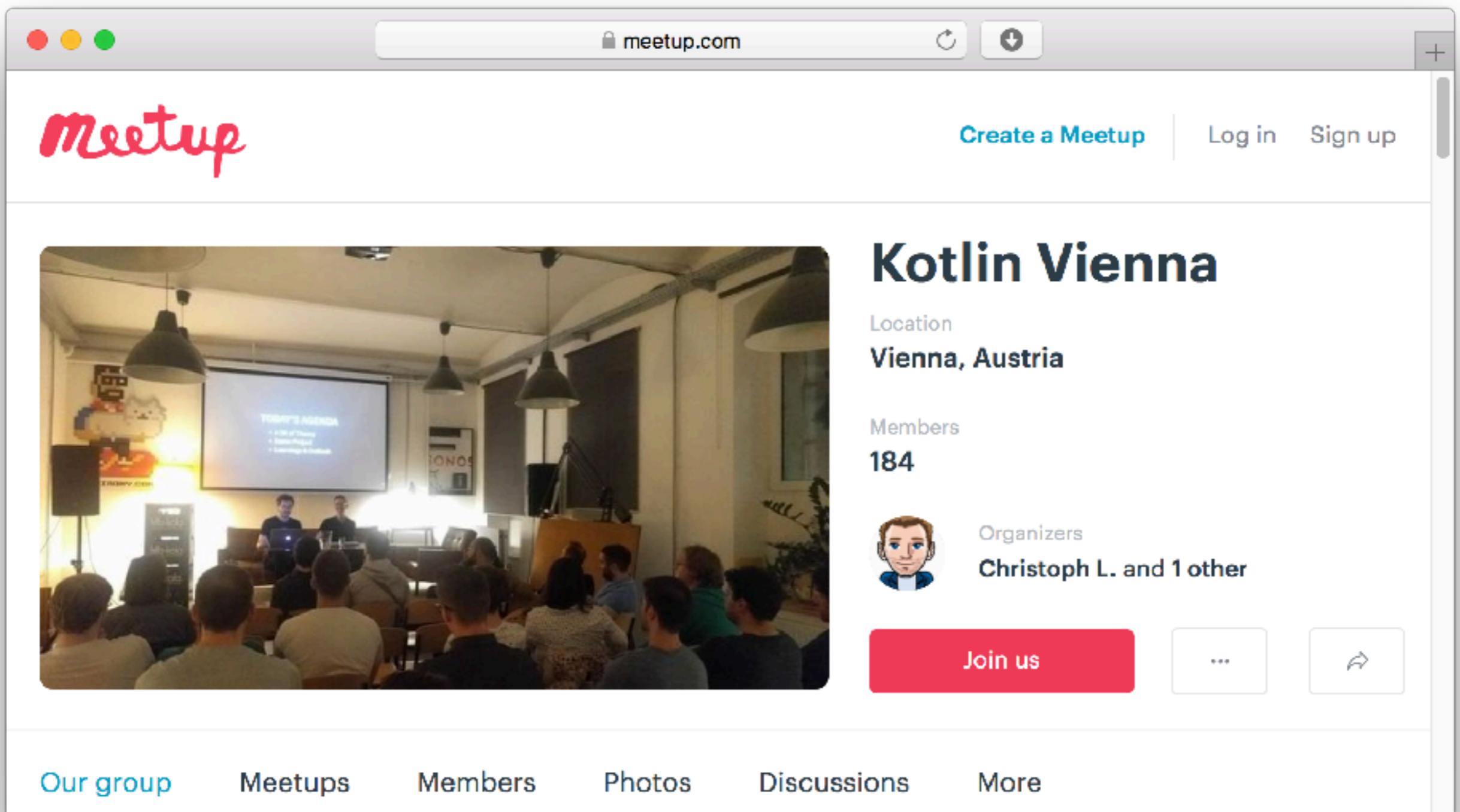
Location  
**Vienna, Austria**

Members  
**184**

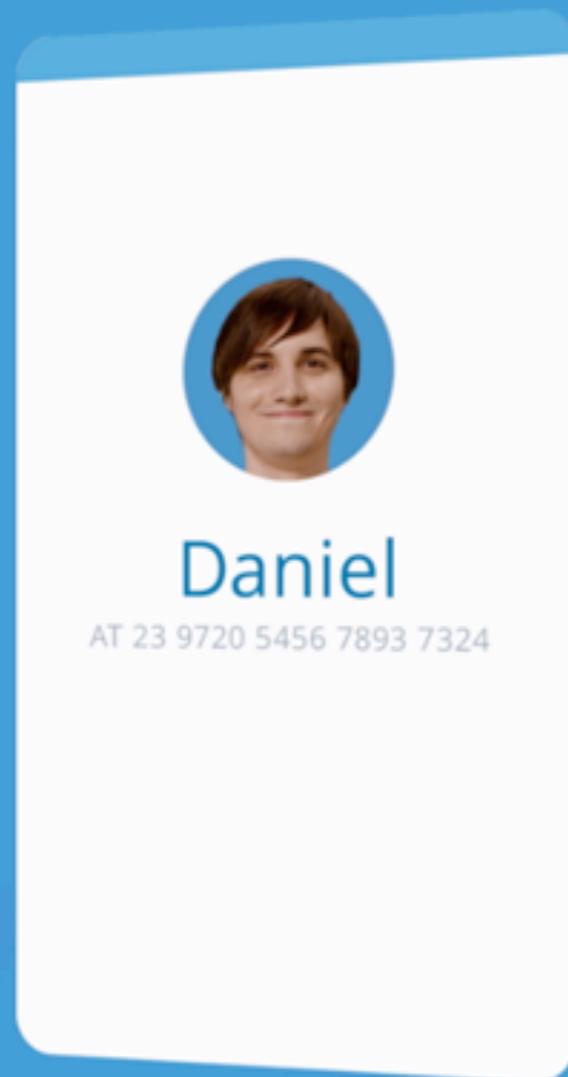
Organizers  
**Christoph L. and 1 other**

Join us

Our group Meetups Members Photos Discussions More



<https://www.meetup.com/Kotlin-Vienna/>





# George

- **Erste Group's Netbanking**
  - "Banking as a Service"
- **Multi-national project**
  - AT > 1.000.000 users
- **State of the art software**
  - Conservative company (?)



**WE'RE  
HIRING!**

# Hiring

- **George Golden Master**
- **George Go - Android/iOS**
- **George Web - JavaScript**
- DWH, Analysts, ...
- We take'em all 😊



Reward: Referral Reward 

Austria

[Front End Engineer for the George Team \(m/f\)](#)

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Reward: Referral Reward 

Austria

[Boring Software Engineer for Rock-Star Online Banking Solution \(m/f\)](#)

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Austria

[SAS Developer for Modeling](#)



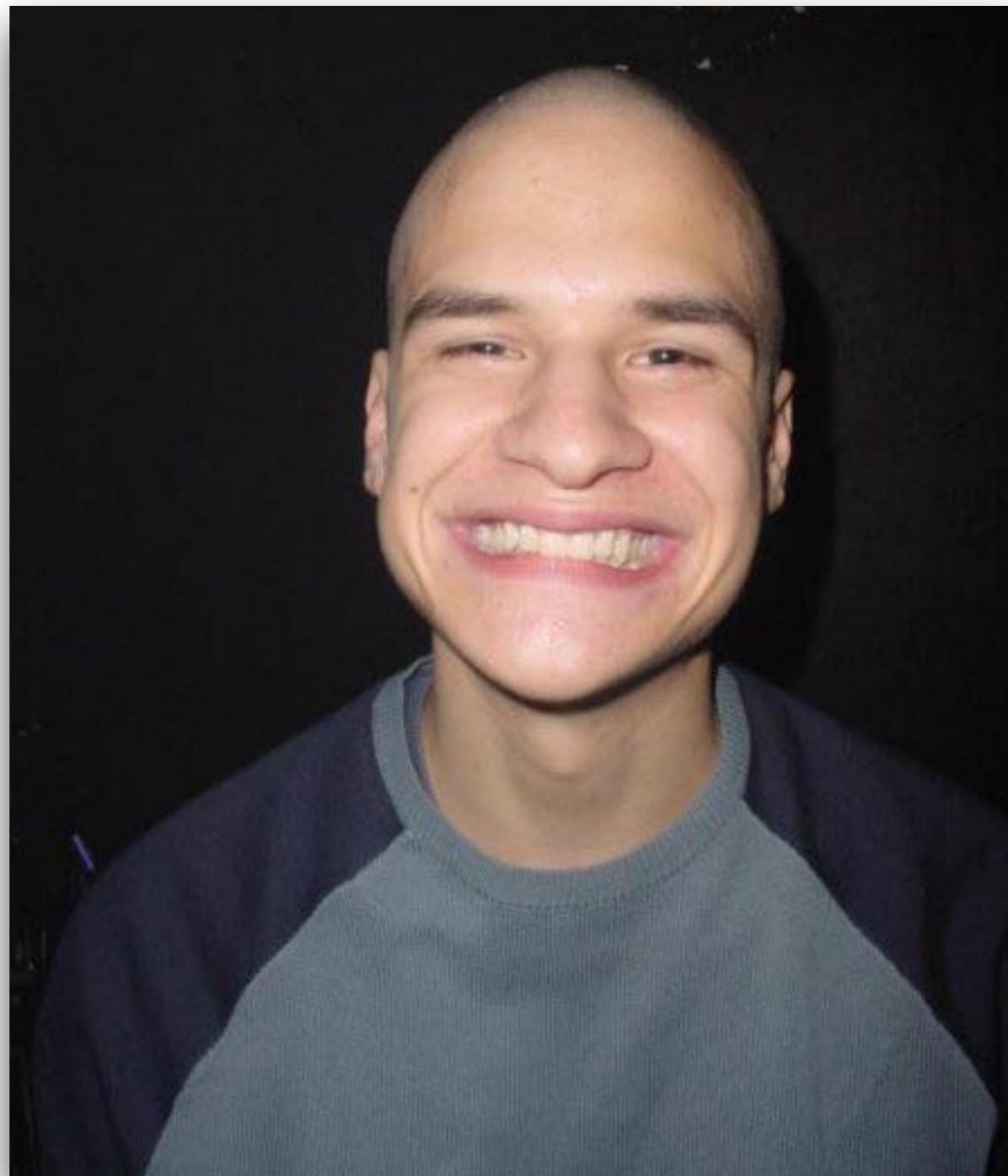
# Team

- We value ...
  - **Code reviews** (GitHub Enterprise)
  - **Collaborative** working (pair programming)
  - Automated **tests** (TDD, BDD)
  - Self **organized** teams
  - Working from **home** and **flexible** office hours
  - **Kotlin** (obviously)



- Brand new **headquarter** (near Hauptbahnhof)
- Tasty **restaurants** (full meal approx. EUR 4,-)
- **Free** sweets, fruits, coffee
- Table **soccer**, table **tennis**
- Choose your own **hard-/software**
- All the **benefits** bank guys get 💰 💰 💰

**Feel free to contact him ...**



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