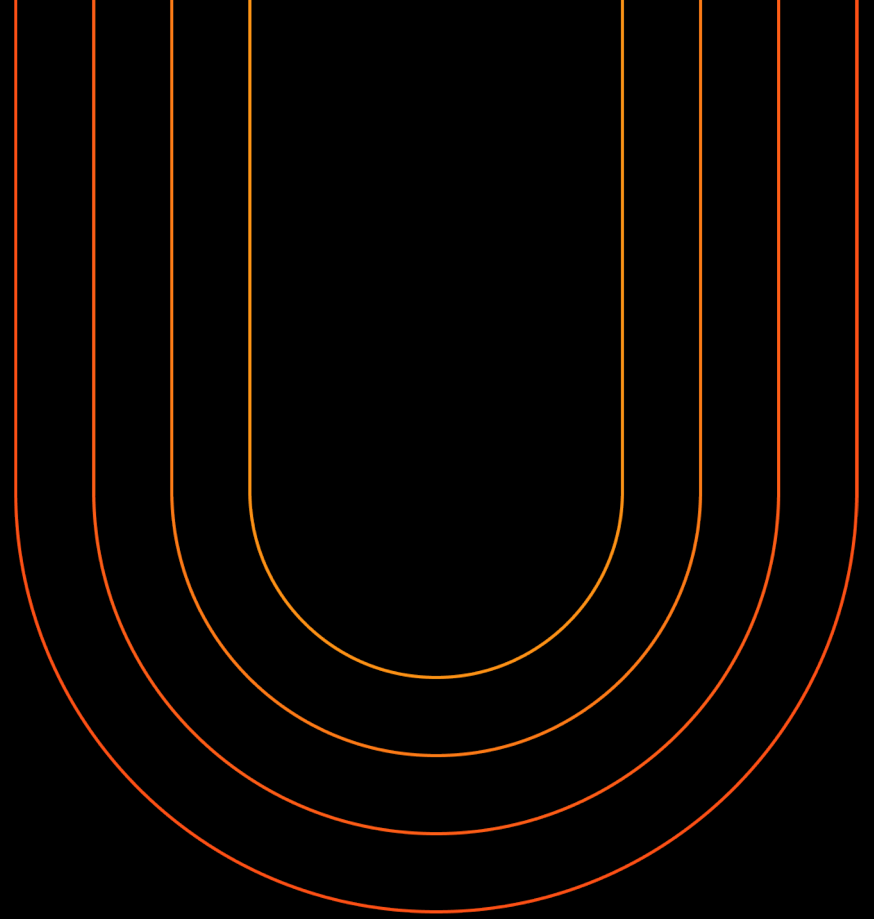# My experience with
TypeScript in UI5

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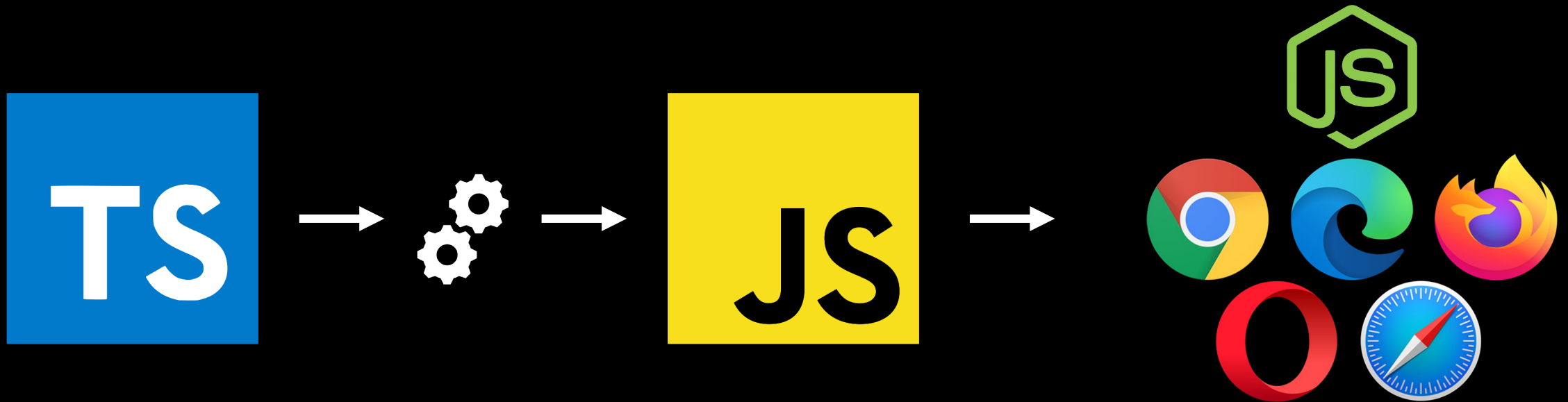
SAP Mentor

UI5con HYBRID

TypeScript

TypeScript

JavaScript   **TypeScript**

```
1    let welcome = "Hello UI5con 2020!";          1    let welcome:string = "Hello UI5con 2022!";
2                                                 2
3    welcome = 2020;                              3    welcome = 2022;
4                                                 4
5    welcome = true;                              5    welcome = true;
6                                                 6
7    welcome = "This is UI5con!";                 7    welcome = "This is UI5con!";
```

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TypeScript

UI5 Support for **TypeScript**

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Why **TypeScript** ?

Get **Started**

Learning curve:
https://www.udemy.com/share/1013yQ3@f94FYMaIwd5er1akskrQdHTYpQrDKdDpWvYqWvyqxTEk6SSnbyoxDXIYhBbxxMkl/

Example repo: https://github.com/SAP-samples/ui5-cap-event-app/tree/typescript/packages/ui-form

Blog post: https://blogs.sap.com/2021/07/01/getting-started-with-typescript-for-ui5-application-development/
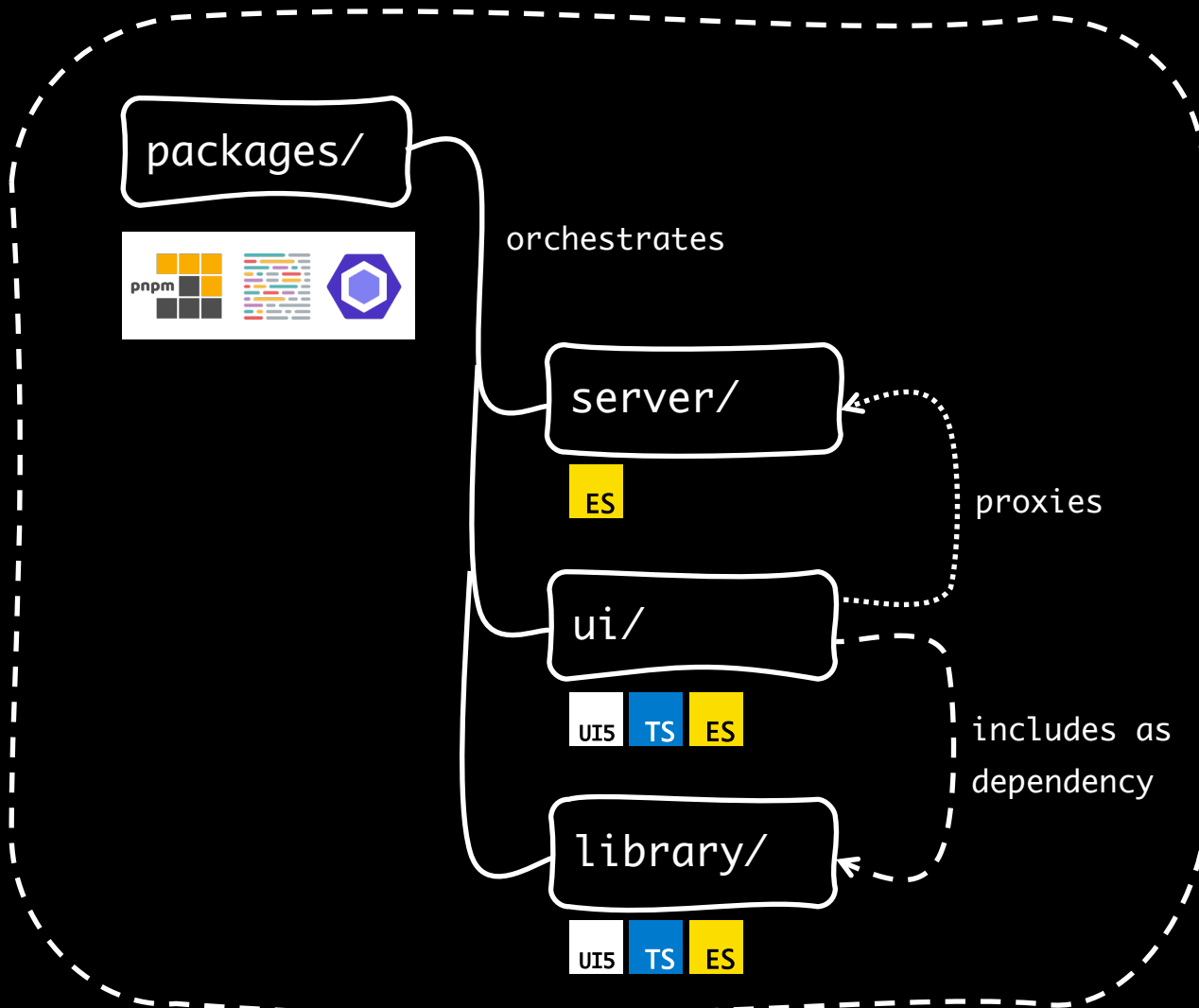
Homepage: https://sap.github.io/ui5-typescript/

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Tooling

- IDE
- Generators
- UI5 tooling
- Fiori tooling

Get the most out of
TypeScript

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Project Structure

- PNPM as package manager for monorepo
- Separate packages for:
  - UI5 application: `packages/ui/`
  - UI5 library: `packages/library/`
  - CAP server: `packages/server/`
- CAP server is proxied by UI5 application
- UI5 application depends on the UI5 library project which is consumed as regular dependency:
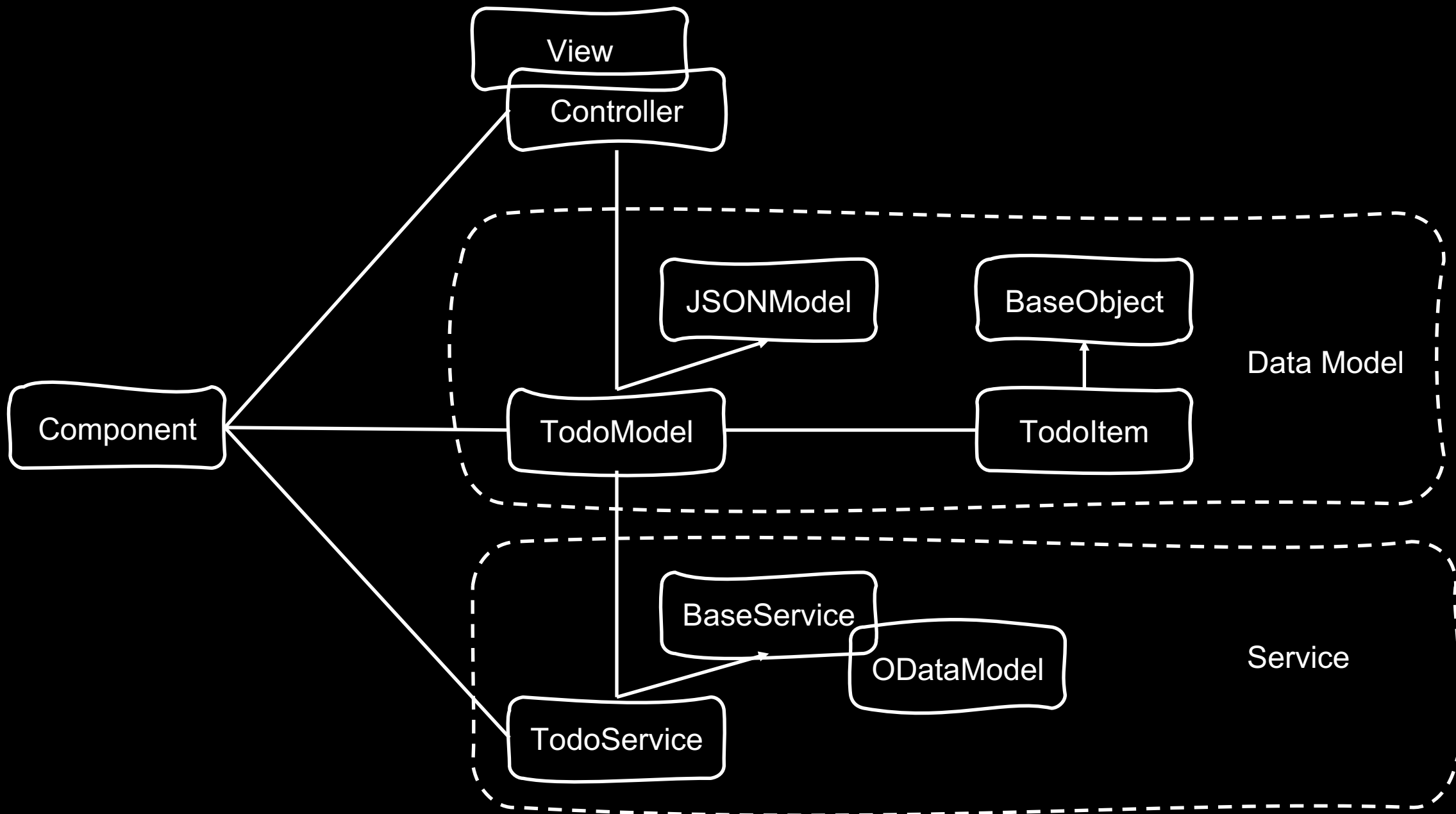
```
"dependencies": {
  "@local/library": "^1.0.0"          ⇐ package.json
},
"ui5": {
  "dependencies": [
    "@local/library"
  ]
}
```

tsconfig.json
⇩

```
"paths": {
  "hacking/away/sampleapp/*": ["./src/*"],
  "hacking/away/samplelib/*": ["./node_modules/@local/library/src/hacking/away/samplelib/*"]
}
```

Reusable Code

- ODataModel v2 wrapper
- Dialog opener

Challenges

Limited generators available

No official documentation & recommendations
- https://sap.github.io/ui5-typescript/

Missing types for some UI5 objects

UI5 libraries and custom controls
- Andreas Kunz

Integration with UI5 & 3th party libraries
- Peter Muessig

Create end-to-end Test scripts
- Volker Buzek

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How to get the most out of UI5 with TypeScript?

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Resources

- **Homepage:** https://sap.github.io/ui5-typescript/

- **Getting started blog post:** https://blogs.sap.com/2021/07/01/getting-started-with-typescript-for-ui5-application-development/

- **My first experience with TS in UI5:** https://blogs.sap.com/2021/11/19/my-first-experience-with-typescript-in-ui5-introduction/

- **Summary:** https://blogs.sap.com/2021/12/17/my-first-experience-with-typescript-in-ui5-summary/

- **Demo project 1:** https://github.com/lemaiwo/UI5TypeScriptDemoApp

- **Demo project 2:** https://github.com/ui5-community/hacking-away-sampleapp

- **Generator:** https://blogs.sap.com/2022/02/25/new-ui5-typescript-generator-flexible-column-layout/

- **Tooling:** https://blogs.sap.com/2021/10/15/getting-ready-for-ui5-development-with-visual-studio-code/

- **wdi5:** https://github.com/ui5-community/wdi5

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Thank you!

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