

Professional TypeScript



Oct 13, 2020
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Production Grade

- ▶ Go from "I can write a little TS" to...
 - ▶ I am on my way to contributing to TypeScript OSS
 - ▶ I'm ready to use this when \$ is on the line
 - ▶ I know what can go wrong, and how to deal with it
 - ▶ I can speak to TypeScript's benefits and limitations

TypeScript Is...

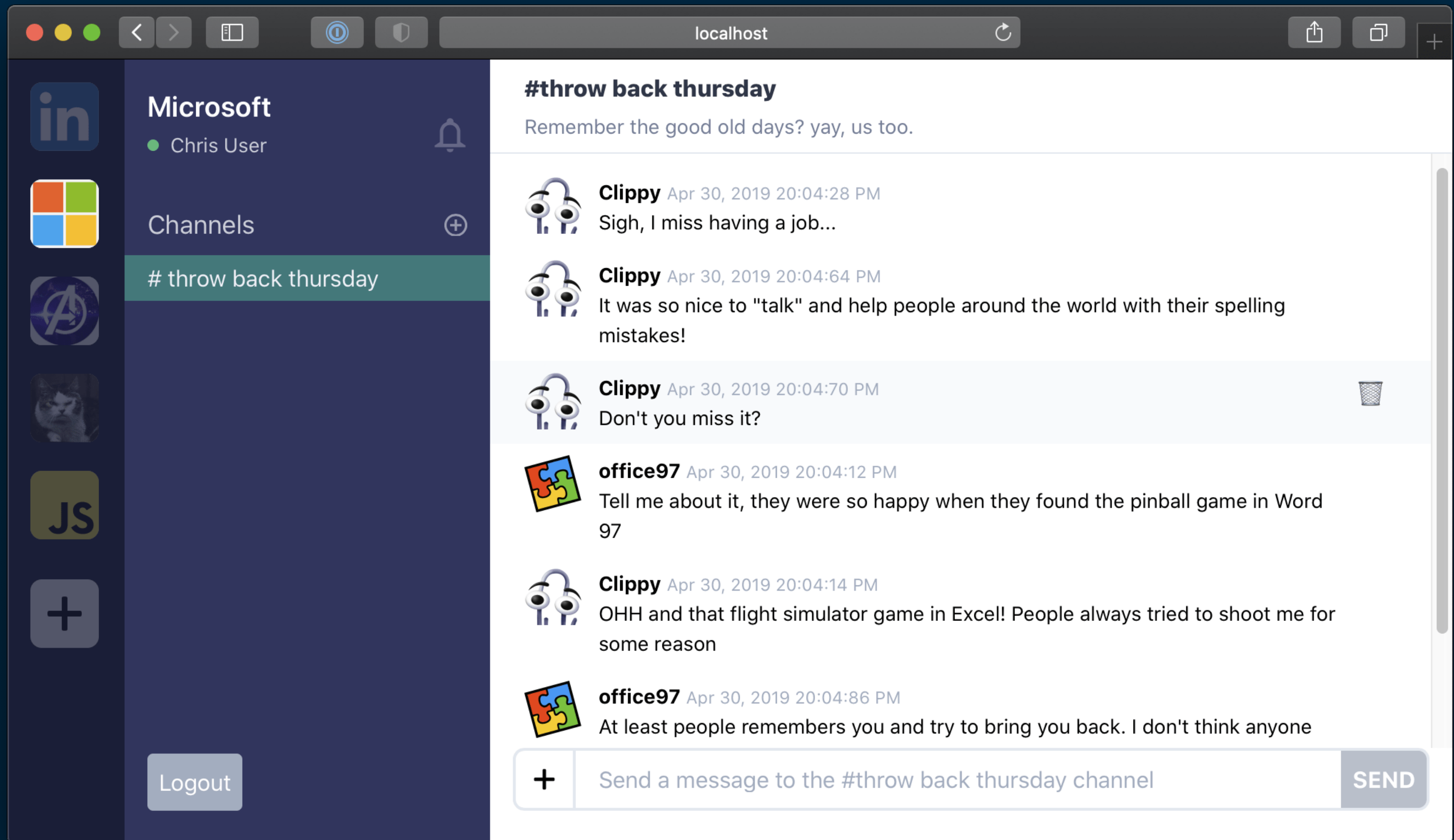
- ▶ A programming language, a compiler and a language server
- ▶ A syntactic superset of JavaScript
- ▶ The core of the best JS environment available today
- ▶ **"A fancy linter", and a fantastic static analysis tool**



What problems does TS help solve?

- ▶ Duck typed languages **start to hurt more** as codebases get large
- ▶ Informal contracts **grow organically**, formal ones grow deliberately
- ▶ JS authoring environments are **worlds behind the UX** of "modern IDEs"
- ▶ Too many JS errors are **discovered at runtime**





Agenda

- ▶ Latest TS features (through 4.1)
- ▶ Library vs. App Concerns
- ▶ Mike's proven TS project setup
- ▶ Dissect and understand: build, lint and test
- ▶ Scalable strategy for converting JS -> TS
- ▶ Declaration files, ambient types and DefinitelyTyped
- ▶ Handling runtime values (XHR)
- ▶ Tests for types
- ▶ Automated early warning of incompatibilities
- ▶ "Large scale" concerns, and how to deal with them

<http://bit.ly/pro-ts>

WORKSHOP PROJECT AND NOTES
(SETUP INSTRUCTIONS ARE IN THE README)