# TOMAS PETRICEK

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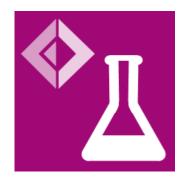
# Programming languages



Theory of context-aware programming languages

Extensions for concurrent & reactive programming

# F# and open source



F# tooling including editors & documentation tools

F# libraries for data access and data visualization

# Data science & journalism



Tools for transparent data-driven storytelling

Making notebooks smart, reproducible & polyglot

# PROGRAMMING RESEARCH meets DATA SCIENCE

Can research engineering become a regular part of data science research?

## Interactive programming for data science

let data =

Usain Bolt

Jason Kenny

#### olvmpics .'filter data'.'Games is'.'Rio (2016)'.then .'group data'.'by Athlete'.'sum Gold'.then .'sort data'.'by Gold descending'.then sort by group by X filter by × olympics by Gold descending X Gold Athlete Michael Phelps 5 Katie Ledecky 4 Simone Biles Katinka Hosszu 3

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## Data visualizations for critical thinking

