## **From Labs to Lives**

## How Research Funding Solves Real-World Problems

## NSF-Funded Research Strengthening the Software that Runs Our World

A UC Davis, Vladimir Filkov leads groundbreaking work using Al and data science to improve the health of open-source software (OSS) — the technology foundation for everything from government systems to the world wide web. His NSF-funded team leads a multi-university, multidisciplinary project that builds tools that track software performance, predict failure points and help global developer teams course-correct in real time to achieve sustainable development.

## **Helping Humanity**

Open-source software powers critical infrastructure worldwide, yet many projects collapse without warning. Filkov's tools help keep this global ecosystem secure and resilient. Without continued NSF funding, this vital research — and talent behind it — could vanish, putting systems we all rely on at greater risk.

There is no other organization but the National Science Foundation that can fund such a broad scoped and novel project like ours, integrating research in multiple disciplines, developing a new science of open-source software sustainability, and training and education of students in them." — Vladimir Filkov, Ph.D.



Vladimir Filkov, Ph.D. College of Engineering Software Infrastructure Intelligence and Sustainability

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