

Brief characteristics of an applicant in appointment proceedings at CTU in Prague

Applicant: Jan Vitek, Ph.D.

A) In pedagogical field

- The number of supervised PhD students who successfully defended their PhD theses: 3.
- The number of defended master/bachelor theses supervised by the applicant: 7/13.
- Applicant's most prominent deed in the field of teaching:
 - 7 new undergraduate (UG) or graduate (G) courses since 2009 at Purdue:
 - *Principles of Programming Languages (G)*, *Software Engineering I (G)*, *Embedded Computer Systems (G)*, *Embedded systems (G)*, *Software for Embedded systems (UG)*,
 - and at NEU:
 - *Introduction to Data Science (G)* and *Expeditions in Data Science (G)*.
- Assessment of the applicant in the Quality Evaluation System Anketa.cvut.cz in the last 4 semesters (1 is the best, 3 is the worst): NA

B) In the field of creative activity

- Three significant original outcomes of creative activity:
 - G. Richards, S. Lesbrene, B. Burg, J. Vitek. An Analysis of the Dynamic Behavior of JavaScript Programs. In Programming Language Design and Implementation Conference (PLDI), Toronto, June 2010. DOI [10.1145/1809028.1806598](https://doi.org/10.1145/1809028.1806598)
 - T. Wrigstad, F. Zappa Nardelli, S. Lebresne, J. Ostlund, J. Vitek. Integrating of Typed and Untyped Code in a Scripting Language. In ACM Symposium on Principles of Programming Languages (POPL), Madrid, January 2010. DOI [10.1145/1706299.1706343](https://doi.org/10.1145/1706299.1706343)
 - F Morandat, B Hill, L Osvald, J Vitek. Evaluating the design of the R language. In European Conference on Object-Oriented Programming, 2012, 104-131. DOI [10.1007/978-3-642-31057-7_6](https://doi.org/10.1007/978-3-642-31057-7_6)
- H-index:
 - 16 (WoS) , 31 (Scopus), 49 (GS).
- Number of citations:
 - 988 (WoS without self-citations), 3234 (Scopus), 7471 (GS).
- Mobility (stays in a workplace abroad – place, duration and outcomes of the stay):
 - Stanford University, Stanford, 6/12 - 6/13, 12 months, visiting professor
 - Oracle Labs, Redwood Shores, USA, 9/12 - 7/13, 10 months,
 - 0xData, Mountainview, USA, 1/12 - 6/13, 18 months, scientific advisor
- Two most prominent grant projects of which the applicant was principal investigator:
 - ERC Advanced ELE: Evolving Language Ecosystems, EU, 2016-22, EUR 3.2M.
 - VerticA: Towards Integrated, Trustworthy, Scripting Languages, ONR, 2017 – 2020, USD 1.5M.
- Examples of implementation of applicant's outcomes in practice:
 - FastR: A partial implementation of the R language as a runtime-specializing abstract syntax tree interpreter running on top of the JVM. Collaboration with Oracle Labs.
 - Thorn: A concurrent and distributed programming language that supports rapid software development in the style of dynamic scripting languages as well as hardening of scripts into robust programs with a gradual type system. Collaboration with IBM Research.
 - Ovm: An open source framework for building virtual machines for Java-like languages. Ovm was used in the first real-time JVM deployed on a UAV.
- The most prominent recognition by community:
 - 2019 ACM SIGPLAN Distinguished Service Award.
 - 2018 ECOOP Test of Time Award.
 - 2020 Dahl Nygaard Senior Award (to be announced in December 2019).
- The most prominent service for the community:
 - Chair of the ACM Special Interest Group on Programming Languages (SIGPLAN), elected, 2012–2015.

- Vice President of the Association Internationale pour les Technologies Objets, elected 2010–2018.
- Vice President of IFIP Working Group 2.4, elected, 2011–2013.

In Prague, Dec 2, 2019.

Assessment Committee:

Chair:

Pavel Tvrđík

Members:

Jiří Matas

Petr Tůma

Tomáš Hruška

Bertrand Meyer