
Frank Fu

November 30, 2016

Skype: fupeng2013

Email: peng-fu@uiowa.edu

Faculty Search Committee
Department of Computer Science

Faculty Search Committee,

I am applying for the advertised tenure track assistant professor position. I obtained my Ph.D. degree in Computer Science from University of Iowa in 2014 under the guidance of Prof. Aaron Stump. My research focus is on type systems and programming language design.

As a type systems researcher, I have experience working on related research areas such as functional programming languages, computational logic and language-based verification. Together with my Ph.D. advisor Aaron Stump, we develop a type system that allows deriving induction principle and constructors distinction, which have long been thought impossible without appealing to extra axioms. This work generates some research interest on the potential of lambda encodings. As a postdoctoral researcher, I work on providing a type-theoretic interpretation for logic programming. I also work on solving the problem of nonterminating type class inference in Haskell, the solution of this problem has since leads to new research directions such as a type-theoretic approach to nontermination for term rewriting.

As a postdoctoral researcher, I taught a part-time introductory course on functional programming for a semester and I had the opportunity to work with undergraduate student on a research project. These experiences help me appreciate the importance of teaching and mentoring in academic life. I look forward to working with students and developing classes. I think the Department here will provide me the opportunity to become an excellent computer scientist and educator.

Thank you for your consideration.

Sincerely,

Frank Fu
