DANIEL PERELMAN

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Education

- **University of Washington**—Seattle, WA (*Ph.D. in Computer Science and Engineering*)
    - Advisors: Dan Grossman and Sumit Gulwani (Microsoft Research)
    - Thesis: *Program Synthesis Without Full Specifications for Novel Applications*
    - Graduated June 2015

- **Cornell University College of Arts & Sciences**—Ithaca, NY (*B.A. Computer Science and Mathematics*)
    - GPA: 3.8 (overall), 4.1 (CS major), 4.0 (Math major)
    - Graduated May 2010

Experience

- **Microsoft**—Redmond, WA (*Research Software Engineer: July 2015–present*)
    - Worked on PROSE (PROgram Synthesis using Examples) team developing program synthesis algorithms and performing engineering work to productize them.

- **Automating Grading**—research with Sumit Gulwani, Judith Bishop, Dan Grossman (*2014–2015*)
    - Used TDS technology to create hint system for programming game CodeHunt (`https://www.codehunt.com/`).

- **Test-Driven Synthesis**—research with Sumit Gulwani, Dan Grossman (*2012–2015*)
    - Developed theory and implemention of a general-purpose program synthesis technique inspired by Test Driven Development.
    - First author on paper in top conference, PLDI 2014

- **Code completion**—research with Sumit Gulwani, Thomas Ball, Dan Grossman (*2010–2012*)
    - Developed partial expressions language for API discovery.
    - Implemented Visual Studio plug-in for using partial expressions for API discovery in real projects (`https://pec.codeplex.com/`).
    - First author on paper in top conference, PLDI 2012

- **YouRenew.com**—New Haven, CT (*Web Programmer: February 2009–August 2009*)
    - Worked on backend for checkout system and contact forms.
    - Deployed Apache Solr search server to improve searching of YouRenew.com product catalog.

- **Times Microwave Systems**—Wallingford, CT (*Web Programmer: February 2006–September 2008*)
    - Designed and developed and modified multiple intranet web applications to reduce paperwork and expedite collaboration between departments.
    - Developed web applications for tracking items in production on factory floor.
    - Met with users and designed applications and interfaces based on their needs.

Teaching Experience

- Worked as a teaching assistant in many computer science courses at Cornell University and University of Washington where duties included grading, teaching section, and holding office hours.

Skills

- **Languages:** C#, Java, Python, Haskell, OCaml, Bash, PHP, Javascript, Scala, C++, C, assembly (x86, ARM, 65c816)
- **Technologies:** Azure, MySQL, PostgreSQL, Django, Apache, IIS, LaTeX, Git, Mercurial, Subversion