David Ellis

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Work Experience

- **Facebook**   02/2008-11/2009
  Software Engineer - Internationalization   Palo Alto, CA
    - translation tool (dynamic explosion, linguistic rules), feed comments, puzzles
    - published "A case study in community-driven translation of a fast-changing website" and "Social (distributed) language modeling, clustering and dialectometry"

- **Google**   Summer, 2007
  Software Engineering Intern - Search Quality   Zürich, Switzerland
    - sentiment analysis and research projects in machine learning and natural language processing

- **Helsinki University of Technology**   Spring, 2007
  Visiting Research Assistant - Adaptive Informatics   Helsinki, Finland
    - first-author publication at IJCNLP-08 (in Hyderabad, India): "Speech to speech machine translation"

- **Google**   Summer, 2006
  Software Engineering Intern - Rosetta   Mountain View, CA
    - improved machine translation among a variety of languages

- **iParadigms**   Summer, 2005
  Intern Developer   Oakland, CA
    - designed and implemented mirror-detection system for efficient web-crawling
    - improved plagiarism detection using enhanced fingerprinting for near-duplicate fragments

- **IAM Technology**   2004-2006
  Consultant - Research and Development   Providence, RI
    - engineered secure transaction management system for authentication across multiple domains

Skills

Languages (Natural): nearly fluent in Finnish; studied many other languages, including Hungarian and Sanskrit.

Languages (Programming): C, C++, Java, Python, Scheme, BASH/CSH/Bourne shell scripting, XML, PHP, SQL, CSS, XHTML, LaTeX, and others...

Software Development: comfortable in object-oriented and functional paradigms in a wide variety of languages; familiar with the use of pthreads, socket communication and dynamic programming

Education

- **Brown University**
  B.A. 2007, with honors in linguistics (and significant coursework in computer science)   GPA - 4.0

- **University of Helsinki**
  Spring 2007, semester abroad, computational and Finno-Ugrian linguistics

- **Columbia University**
  Summer session 2004, including graduate level course in linguistic anthropology   GPA - 4.0

Academic Research

- **Computational linguistics**   (with Profs. Eugene Charniak and Mark Johnson)
    - sentence parsing, translation - Brown Laboratory for Linguistic Information Processing (BLLIP)
        * Coauthored ACL 2006 paper: "Multilevel Coarse-to-fine PCFG parsing"
        * Honors thesis published at ACL 2008 (SIGMORPHON): "A Bayesian model of natural language phonology: generating alternations from underlying forms"

- **Information Security and Applied Cryptography**   (with Prof. Roberto Tamassia)
    - email authentication - Accredited DomainKeys

- **Child Language Acquisition**   (with Prof. Katherine Demuth)
    - coauthor of book chapter: "Revisiting the acquisition of Sesotho noun class prefixes" (2008)