

## Amittai F. Aviram

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## Experience

### **Medtronic. Boston, MA. Senior Software Engineer.**

September 2016–present. Surgical robotic system research and development lab. Created Simulink real-time logging tools with MATLAB programs that generate C++ code at build time. Collaborated on system integration diagnostic tools and code generation for interprocess communication. (C++, C, MATLAB, Simulink, BASH, CMake, Protocol Buffers, FlatBuffers).

### **Wentworth Institute of Technology. Boston, MA. Adjunct Instructor.**

October 2016–present. Developed and taught [Programming Paradigms and Systems \(CPSC 7050\)](#), an online, intensive, project-driven, 7-week, master's-level course, introducing students to four language paradigms, as well as parallel, distributed, real-time, and embedded systems. Also taught introductory programming in Java.

### **MathWorks. Natick, MA. Senior Software Engineer.**

September 2012–May 2016. Code Generation Intermediate Representation Team, supporting code generation products. Developed tools for ensuring safety and correctness of generated code. (C++, Perl)

### **Google. New York, NY. Summer Intern.**

May–September 2011. Site Reliability Engineering team. Designed and developed a tool to gather and report data on high-latency operations in the distributed storage infrastructure (C++).

### **Google, Inc. New York, NY. Summer Intern.**

May–August 2010. DoubleClick team. Designed and developed an integrated testing infrastructure for their new advertisement tracking tag server (Python).

### **Ellington Management Group. Old Greenwich, CT. Summer Intern.**

May–Aug. 2007. Developed a custom Web services infrastructure, including parser, serializer, asynchronous parallel message handler, deserializer, and CLR IR code generator (C#), together with unit and system tests (C#, Python).

### **Microsoft Research. Redmond, WA. Summer Intern.**

May–August 2006. Designed and developed a demonstration project to infer a context-free grammar from the source code of a hand-written parser, using Microsoft's Phoenix compiler toolkit (C++.Net).

## Education

### **Yale University. PhD, Computer Science.**

Dissertation project: Deterministic Parallel OpenMP. Advisor: Bryan Ford.  
Co-author, USENIX OSDI Best Paper Award, 2010.

### **Columbia University. BS, Computer Science.**

Theory track. Russell C. Mills Award. Contributed to NLP faculty research project on Arabic morphology.

### **Yale University. PhD, English Language and Literature.**

### **Columbia University. BA, English and Comparative Literature.**

### **Coursera Certificate**

Machine Learning. 9 August 2016.

## Previous Career

### **Associate Professor, English and Comparative Literature,**

University of South Carolina, Columbia, SC. August 1984–August 2004.

Research and teaching on poetry and poetics. Mellon Postdoctoral Fellowship, Cornell University, 1986.

Tenure: 1994. Fulbright Senior Scholar, Germany, 2001.

## Technical Skills

### **Programming Languages**

C++, Python. Experience in C, C#, Java, Perl, PHP, JavaScript, Haskell, ML, R, BASH, MATLAB,.

### **Other Technologies**

HTML, LaTeX, Dot, SQL. GCC, GDB, Clang/LLVM, XCode, Visual Studio, Eclipse, Vim, CMake, Git.

### **Operating Systems**

Linux, Windows, Mac OS X