

# Max Ramond Sobell

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## EDUCATION:

Dual degree program: New York University/Stevens Institute of Technology, year 4 of 5.  
Bachelor of Science: Computer Science (NYU) '11 GPA 3.6 out of 4.0  
Bachelor of Engineering: Computer Engineering (SIT) '11 GPA 4.0 out of 4.0

## OBJECTIVE:

To work with a diverse team on an integrated hardware and software project.

**PROJECTS** (For more details and code, please visit [http://maxsobell.com/wp/?page\\_id=44](http://maxsobell.com/wp/?page_id=44)):

### ROBOTICS:

- **3pi Robot (C Language):** Line-following program using a PID controller and a dead reckoning program.
- **Rovio Robot (Lush Language):** Object recognition: the robot was programmed to take and analyze a picture from its onboard camera while receiving instructions via wifi to find and "shoot" a tennis ball into a goal. With Professor Yann Lecun.
- **E-Puck Robot (C Language):** Project ongoing: Real-time positioning and movement algorithms implemented using the C language and the E-Puck's on-board processor.

### LOW-LEVEL:

- **Tanks:** A visual re-creation of the classic Tanks game coded entirely in x86 assembly language.

### SECURITY:

- **Advanced SQLi:** Automated injection into a LAMP stack server to fully functional remote PHP shell on the target using a Ruby script with 2 methods of exploitation.

### DATABASE:

- **K-medoids Clustering:** Implemented and tested an efficient clustering algorithm for a large biology dataset.

## WORK EXPERIENCE:

**Scholz International** **Financial Engineer** **2009 – Present**

- Created and automated a hedging strategy to present to Scholz management team on site in Esslingen, Germany.
- Ongoing analysis and programming tasks.

**ActorMachine** **Server Admin** **2009**

- Configured and administrated a secure subversion server with multiple repositories for many users.

**OmniQuant, Inc.** **Financial Engineer** **2007 – 2009**

- Designed and coded dynamic real-time trading strategies for hedge funds using Excel and VBA.
- Communicated with clients in Mexico, US and Canada and visited hedge funds and brokerages in NYC to install software.

**SLASHmax Computers & Website** **Computer Repair** **2002 – Present**

- Built custom computers, repaired existing systems, repaired and created networks for businesses and individuals.
- 30+ clients in Silicon Valley and New York.

## ACTIVITIES AND LEADERSHIP:

- NYU ACM and NYU Programming Team, Treasurer
- NYU V22.0310 Basic Algorithms, Grader
- Engineering Design Labs II and VI, Team Project Leader
- Pickup Soccer NYC, Group Organizer
- M-A High School Varsity Lacrosse, Captain

## LANGUAGES:

### FLUENT:

C, Java, x86 Assembly

### PROFICIENT:

C++, Lush (Lisp dialect), PHP/MySQL, R, Ruby, VBA, Omnet++, VHDL

## PUBLISHED MATERIAL:

- "rsync" chapter for A Practical Guide to Linux Commands, Editors, and Shell Programming (2e).
- "MySQL" chapter for A Practical Guide to Fedora and Red Hat Enterprise Linux (5e).