

# David Tagatac, M.S.

Software Engineer - Computer Science Student - Open Source Enthusiast

Greenbelt, MD 20770

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## PROFILE

Highly motivated software engineer with proven system design, programming, and process engineering abilities, and a strong background in physics. Looking for a software engineering, software management, and/or software research position on a team that embraces the latest technologies and the sharing of knowledge among members. Projects related to artificial intelligence or information security are preferred, but not required. Experience in satellite data manipulation, large data flow, regression test automation, and versioning system setup and administration. An enthusiastic and professional team player.

## PROFICIENCIES (with mode and year of most recent uses)

- **OCaml:** coursework (2011)
- **Java:** coursework (2009), development (2009)
- **Python:** development (2011)
- **Ruby:** coursework (2011)
- **C Shell/Linux/Bash:** development (2011), home use (2011)
- **C++:** coursework (2009)
- **C:** development (2010), coursework (2010)
- **MySQL:** development (2011)
- **Hierarchical Data Format (HDF):** development (2011)
- **Apache Ant:** development (2010)

## EDUCATION

**University of Maryland**, College Park, MD

**2010-Present**

Non-degree coursework in computer science

Cumulative **GPA: 3.67**

- Organization of Programming Languages - **Perfect scores on three of five projects.**
- Algorithms - **High score on the final exam (out of 62 students).**
- Computer Organization - **Perfect scores on all four projects.**

**University of California - San Diego**, La Jolla, CA

**2006-2009**

**M.S. Materials Science and Engineering**

Cumulative **GPA: 3.74**

Additional coursework in object-oriented programming:

- Basic Data Structures and Object-Oriented Design - **Top score (out of 90 students).**
- Introduction to Computer Science & Object-Oriented Programming in Java

**Cornell University**, Ithaca, NY

**2002-2006**

**B.S. Engineering Physics**

Cumulative **GPA: 3.49**

## RELEVANT EXPERIENCE

### Software Engineer

January 2010 - Present

#### General Dynamics Information Technology, NOAA Activities, Greenbelt, MD

- Work independently to evaluate and implement fixes/enhancements for software issues raised by my team lead or the customer (both of whom are consistently impressed with the results).
- Maintain and code new functionality for a system to produce proxy satellite data (as from sensors to be launched) from similar real data from sensors already in operation (Python/HDF5).
- Design and code alterations to the database and other low-level infrastructure as needed by bug fixes and enhancements to the proxy generation scripts (Python/C Shell/MySQL/C/Fortran).
- Communicate progress to customers via weblog.
- Train new developers on the layout and use of the system.
- Wrote the version control policy for the group.

### Program Analyst, DrFirst Corp., Rockville, MD

May 2009 - January 2010

- Moved the company's source code from Microsoft Visual Source Safe to the open source SubVersion versioning system.
- Wrote scripts to automatically get, build, and create deployment file structures for eight different projects - significantly reduced the amount of engineer time on frequent builds (Apache Ant).
- Led the quality assurance for three of ten major company projects - oversaw and/or performed new functionality and regression testing; testing automation; and coordination of cooperative testing with external parties.
- Assisted in coding bug fixes, enhancements, and new functionality for one of ten major company projects (Java).

### Webmaster (volunteer), Cornell Club of San Diego, San Diego, CA

October 2008 - May 2009

- Kept website (<http://ccsd.alumni.cornell.edu>) current with club information as communicated by other members of the board.
- Redesigned format to maximize readability, navigability, and attractiveness.
- Attended club board meetings to get feedback on these goals and provide the same for other members of the board.

### Graduate Researcher

August 2006 - December 2008

#### Ivan Schuller's Nanoscience Group, UCSD Department of Physics, La Jolla, CA

- Supervised operation and maintenance of sputtering and X-ray diffraction systems.
- Investigated metal-insulator transition in vanadium sesquioxide.
- Investigated magnetoresistance of FNF trilayers containing vanadium dioxide.
- Designed and implemented gas flow control system via EIA-485 interface utilizing LabVIEW - operational and used daily for over a year.

## AFFILIATIONS

- IEEE Computer Society
- Sigma Alpha Lambda
- National Society of Collegiate Scholars

## OTHER INTERESTS

- Chess (Best under rating 1400 in the San Diego Chess Club's 2009 Championship)
- Tennis
- Weightlifting