

# Joseph Daou

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## Education: *by Institution and Department*

- **University of New Haven Chemistry and Chemical Engineering, Chemistry B.S.** (May 2015 Expected Graduation)
  - August 2013 transfer student
  - **University of New Haven GPA: 3.47; Chemistry GPA: 3.85** (Currently a Senior)
- **Emmanuel College Department of Chemistry, Chemistry B.S** (Transferred Upon Completion of Sophomore Year)
  - **Emmanuel College GPA: 3.29** (September 2011 – June 2013)

## Research and Experiences:

### **Dr. Xiao Research Group** - <http://chemistry-hpc.newhaven.edu/>

*2014 Research Group Leader*

- Proficiency in Visual Molecular Dynamic (VMD) software to calculate the free energy changes in mutated and wild-type proteins
- Proficiency in NAMD to gather scalable molecular dynamics of mutated proteins and RNA sites with 88-CPU server
- Computational analysis of protein and nucleic acid binding interactions
- Proficiency in YASARA

**Arvinas Inc.**, New Haven, CT (February 2014 - present)

*Department of Chemistry Intern*

- Compound handling and distribution
- LC/MS quality assurance
- Compound solubility assays for research using reference solutions (1-240 hour timepoints)

**Yale University School of Medicine: Department of Hematology**, New Haven, CT (October 2013 - December 2013)

*Understudy of Stephen Liang Ph.D. and Stefanie Halene M.D.*

- Observe gene expression in proteins.
- Practice with analytical techniques such as Western Blot and PCR gel electrophoresis

**BAL Laboratory**, Cranston, RI (July 2013 - September 2013)

*Seasonal Sampler/Laboratory technician*

- Sampled and relinquished Rhode Island coastal shoreline water, city drinking water, well water, power-plant waste water, homeowner water for bacterial testing
- Bacterial analysis of media plates
- Membrane filtration and total coliform agar plate counts to test for E.Coli, Esch Alicia, and Enterococci bacteria  
Colisure<sup>®</sup> tray analysis of private beach water

**Emmanuel College**, Boston, MA (February 2012 - June 2012)

*Chemistry Lab Assistant for Work-Study*

- Solution & Experiment preparation
- Chemical inventory with MSDS online database
- Test labs and procedures for proper results and data

## Awards and Honors:

- University of New Haven Summer Undergraduate Research Fellowship recipient, 2014. (Research stipend for undergraduate research)

## Professional Memberships:

- Student Member, American Chemical Society.

## Publications:

- **Conference Posters**

- **Joseph Daou** and Dequan Xiao, “*Understanding Protein-RNA Interactions for Alternative Splicing During Gene Expression Using Molecular Dynamics Simulations*”, 248<sup>th</sup> American Chemical Society National Meeting and Exposition, San Francisco, CA, August 10-14, **2014**.  
[http://abstracts.acs.org/chem/248nm/program/view.php?obj\\_id=276566&terms=](http://abstracts.acs.org/chem/248nm/program/view.php?obj_id=276566&terms=)
- **Joseph Daou** and Dequan Xiao, “*Understanding Protein-RNA Interactions for Alternative Splicing During Gene Expression Using Molecular Dynamics Simulations*”, 2014 University of New Haven SURF Research Day, West Haven, CT, September 17<sup>th</sup>, **2014**.  
<http://www.newhaven.edu/academics/faculty/research/SURF/829721.pdf>

**Additional Experience:**

**RI DEM: Parks and Recreation (Goddard Park State Beach)**, Warwick, RI (June 2012 – October 2013)

*Seasonal Surf-Certified Lifeguard*

- Supervised swimmers and beach patrons while performing first aids and rescues
- American Red Cross: Lifeguarding/ First Aid & CPR/AED Certified

**Extracurricular Activities:**

- **St. George’s Maronite Catholic Church Alter Server (Cranston, RI):** (June 2007-present)
- **University of New Haven American Chemical Society:** (September 2013-present)
- **University of New Haven Rotaract Club:** (January 2014-present)
- **University of New Haven Forensic Science and Chemistry Club:** (September 2013-present)
- **University of New Haven Men’s Club Volleyball Team:** (August 2013-present)
- **Emmanuel College Sunday Service Group:** (September–December 2012)