# SANG (TONY) YOUNG CHUN

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EDUCATION	
2011-2017	Ph.D., Computational Medicine and Bioinformatics, University of Michigan, Ann Arbor, MI, USA
2009-2011	M.Sc., Computational Medicine and Bioinformatics, University of Michigan, Ann Arbor, MI, USA
2007	B.A., Biology, Kalamazoo College, Kalamazoo, MI, USA
EXPERIENCE	
2017	Post-doctoral Research Fellow, University of Michigan, Ann Arbor, MI, USA
2009-2017	Graduate Student Research Assistant, University of Michigan, Ann Arbor, MI, USA
	<ul> <li>Applied supervised and unsupervised machine learning approaches to assess the efficiency of protein synthesis through integrative analysis of multi-scalar next-generation sequence data</li> <li>Developed and implemented a weighted sampling methodology to simulate variable imperfections in sequence data</li> </ul>
	<ul> <li>Cultivated expertise in the aggregation, extraction, and integration of large data sets and databases including the 1000 Genomes Project, TCGA, COSMIC, GEO, Ensembl, and NCBI</li> <li>Authored several articles in peer-reviewed journals including Nature, PLoS Genetics, Genes and Development, and BMC Bioinformatics with over 960 citations since publication</li> </ul>
2016	Graduate Student Instructor, University of Michigan, Ann Arbor, MI, USA
	<ul> <li>Created interactive laboratory modules on version control and statistical computing in R, directed lecture recitations, and prepared all exams and assignments</li> </ul>
	► Earned student evaluations of 4.9/5.0 for subject matter expertise and mentorship versus the university-wide median of 4.58
2002-2009	<ul> <li>Research Technician Associate, University of Michigan, Ann Arbor, MI, USA</li> <li>Directed experimental efforts that led to the publication of several highly cited articles in Journals including <i>Cancer Research</i> with over 330 total citations to date</li> <li>Supervised 5 trainees in experimental protocols, and hazardous material and radiation safety</li> </ul>

# **SKILLS**

### **Programming and scripting languages**

Python, R, MySQL, AWK, Bash, Java, C++

### Data integration and visualization

ggplot, Plotly, matplotlib, Shiny, NumPy, SciPy, Pandas

#### Machine learning and feature extraction

Signal processing, clustering, regression, Bayesian inference, PCA, SVM, RF, TensorFlow, scikit-learn

#### **Environments and version control**

Linux, OS X, Windows, Anaconda, GitHub, SVN, RStudio, Jupyter (Notebooks and Lab)

### **Presentation and editing**

Microsoft (Excel, Powerpoint, Word), Adobe (Illustrator, Photoshop), GIMP

### Languages

English (native), Korean (conversational), French (basic)

## **ACTIVITIES**

### Leadership

President, Kalamazoo College Pre-Medical Society (2 years)

- ▶ Directed volunteer opportunities with local service organizations, physician shadowing events, and lectures Director, Kalamazoo College Ultimate Frisbee
- Revived a defunct intramural and intercollegiate program, and led team to regional tournaments

#### **Organizations**

- ► International Society of Computational Biology (c.2012), University of Michigan Graduate Consulting Club Interests
- Ultimate Frisbee (collegiate and recreational), Weight Training, Building Custom Computer Systems