A Comprehensive List of Undergraduate Bioinformatics Programs in the United States

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Abstract: A most comprehensive list of undergraduate bioinformatics programs in the United States. It includes 57 universities that offer bioinformatics majors. It is the most comprehensive collection in 2021, and it will help researchers on life science to foster further collaboration on bioinformatics education. Further, the list will help more American youths to pursue dreams in bioinformatics once the list is later published on Wikipedia.

Here, we present a comprehensive list of undergraduate bioinformatics programs in the United States.

The reason I do this research is when I was looking for undergraduate schools offering bioinformatics programs which I might attend, I couldn't find a full list and spent a lot of time doing the research. Even though some places have a collection, but they are outdated or have issues with verification: Carnegie Mellon University this year just updated its list to an interactive page but only has 31 programs on it including some programs no longer exist (Carnegie Mellon University School of Computer Science, 2021); University of North Carolina at Chapel Hill has a page that has not been updated since 2006 (University of North Carolina at Chapel Hill, 2006); some websites might also have a list but not accurately and been verified (Biology-Colleges.com, 2018); National Center for Education Statistics has interactive searching system which lists 71 bioinformatics programs without verification and lack of some schools including my institution IUPUI (National Center for Education Statistics, 2021). I think my time in the school searching process can contribute to a paper and additionally help others.

I first put keywords “bioinformatics undergraduate”, “computational biology undergraduate”, and combined with the state name in google, looking through all of the results; each search result will then be verified. Then do additional searching. I verified those schools listed on the mentioned websites. With the simple method, I have this comprehensive list.

It includes a total of 57 universities that offer the bioinformatics major.

To be clear, this list only covers universities that offer an independent major specifically to bioinformatics. The major name can be “bioinformatics”, “computational biology”, “biomedical informatics”, “biomathematics”, or “system biology”. For the reason of standardization, I do not count the major considered “bioinformatics” as a concentration/track to a major in biology, computer science, informatics, etc., like University of Missouri-Kansas City (University of Missouri Kansas City, 2020).

I believe this is the most comprehensive collection in 2021, and it will help researchers on life science to foster further collaboration on bioinformatics education. Further, the list will help more American youths to pursue dreams in bioinformatics once the list is later published on Wikipedia.

[New England](#) ([Connecticut](#), [Maine](#), [Massachusetts](#), [New Hampshire](#), [Rhode Island](#), and [Vermont](#))

[Connecticut](#)

University of Saint Joseph

Bioinformatics, B.S.

<https://www.usj.edu/academics/sasbe/biology/bioinformatics-bs/>

[Maine](#)

Colby College

Computational Biology, BS

<http://www.colby.edu/catalogue/requirements/bi/>

[Massachusetts](#)

Wheaton College

Bioinformatics. BS

<https://wheatoncollege.edu/academics/majors-minors/bioinformatics/>

Worcester Polytechnic Institute

Bioinformatics & Computational Biology, BS

<https://www.wpi.edu/academics/departments/bioinformatics-computational-biology>

[New Hampshire](#)

None

[Rhode Island](#)

Brown University

Computational Biology, ScB & AB

<https://www.brown.edu/academics/biology/undergraduate-education/undergraduate/computational-biology>

[Vermont](#)

None

Mid-Atlantic (New Jersey, New York, and Pennsylvania)

New Jersey

Rowan University

Bioinformatics, BS

<https://csm.rowan.edu/departments/mcb/academic-programs/undergraduate/bioinfo-bs.html>

Ramapo College

Bioinformatics, BS

<https://bioinformatics.ramapo.edu/bsbinf/index.html>

Rutgers University–Camden

Computational and Integrative Biology, BS

<https://ccib.camden.rutgers.edu/programs/undergraduate/>

New York

University at Buffalo

Bioinformatics and Computational Biology, BS

<https://arts-sciences.buffalo.edu/biological-sciences/undergraduate/programs/bioinformatics.html>

Cornell University

Biometry and Statistics, BS

<https://cals.cornell.edu/education/degrees-programs/biometry-statistics-major-and-minor>

Rochester Institute of Technology

Bioinformatics and Computational Biology, BS

<https://www.rit.edu/study/bioinformatics-and-computational-biology-bs>

New York City College of Technology

Biomedical Informatics - BS

<https://www.citytech.cuny.edu/biological/biomedical-informatics-bs.aspx>

St. Bonaventure University

Bioinformatics, BS

<https://www.sbu.edu/academics/bioinformatics>

Pennsylvania

University of Pennsylvania

Computational Biology, BAS, BA

<https://www.cis.upenn.edu/undergraduate/program-offerings/computational-biology/>

<https://catalog.upenn.edu/undergraduate/programs/biology-computational-biology-ba/>

University of Pittsburgh

Computational Biology, BS

<https://www.biology.pitt.edu/computational-biology>

Carnegie Mellon University
Computational Biology,BS
<http://cbd.cmu.edu/education/undergraduate/index.html>

[East North Central](#) ([Illinois](#), [Indiana](#), [Michigan](#), [Ohio](#), and [Wisconsin](#))

[Illinois](#)

Loyola University Chicago
Bioinformatics, BS
<https://www.luc.edu/bioinformatics/bsinbioinformatics/>

Illinois Institute of Technology
Bioinformatics, BS
<http://bulletin.iit.edu/undergraduate/colleges/science/biology/bs-bioinformatics/>

[Indiana](#)

Indiana University–Purdue University Indianapolis
Biomedical Informatics, BS
<https://soic.iupui.edu/undergraduate/degrees/biomedical-informatics/>

Rose-Hulman Institute of Technology
Biomathematics, BS
<https://www.rose-hulman.edu/academics/academic-departments/mathematics/majors-minors.html#Biomath>

[Michigan](#)

Michigan Technological University
Bioinformatics, BS
<https://www.mtu.edu/biological/undergraduate/bioinformatics/>

[Ohio](#)

Walsh University
Bioinformatics, BS
<https://www.walsh.edu/bioinformatics-degree.html>

Case Western Reserve University
Systems Biology, BS
<https://biology.case.edu/undergraduate/bachelor-of-science-systems-biology/>

Wisconsin

University of Wisconsin-Parkside

Molecular Biology and Bioinformatics, BS

<https://www.uwp.edu/learn/programs/molecularbiomajor.cfm>

Marquette University

Bioinformatics, BS

<https://www.marquette.edu/explore/major-bioinformatics.php>

West North Central ([Iowa](#), [Kansas](#), [Minnesota](#), [Missouri](#), [Nebraska](#), [North Dakota](#), and [South Dakota](#))

Iowa

Iowa State University

Bioinformatics and Computational Biology, BS

https://catalog.iastate.edu/collegeofliberalartsandsciences/bioinformaticsandcomputationalbiology_undergraduate/index.html

Kansas

None

Minnesota

None

Missouri

University of Central Missouri

Bioinformatics BS

<https://www.ucmo.edu/academics/programs/majors/bioinformatics-bs-43-653-biological-science-option/index.php>

Nebraska

University of Nebraska Omaha,

Bioinformatics, BS

<https://www.unomaha.edu/college-of-information-science-and-technology/school-of-interdisciplinary-informatics/bioinformatics/bs-bioi.php>

North Dakota

Minot State University

Bioinformatics, BS

<https://www.minotstateu.edu/enroll/programs/bioinformatics.shtml>

[South Dakota](#)

None

[South Atlantic](#) ([Delaware](#), [Florida](#), [Georgia](#), [Maryland](#), [North Carolina](#), [South Carolina](#), [Virginia](#), [District of Columbia](#), and [West Virginia](#))

[Delaware](#)

None

[Florida](#)

Florida State University

Computational Biology, BS

<https://www.bio.fsu.edu/compbio/>

Florida Institute of Technology.

Biomathematics, B.S.

<https://www.fit.edu/programs/biomathematics-bs/>

[Georgia](#)

None

[Maryland](#)

University of Maryland, Baltimore County

Bioinformatics and Computational Biology, BS

<https://biology.umbc.edu/undergrad/undergraduate-programs/binf/>

Bowie State University

Bioinformatics, BS

<https://bowiestate.edu/academics/colleges/college-of-arts-and-sciences/departments/natural-sciences/undergraduate-programs/bioinformatics-major/index.php>

Towson University

Molecular Biology, Biochemistry & Bioinformatics, BS

<https://catalog.towson.edu/undergraduate/fisher-science-mathematics/molecular-biology-biochemistry-bioinformatics/molecular-biology-biochemistry-bioinformatics/>

[North Carolina](#)

None

South Carolina

Presbyterian College

Computational Biology, BS

<https://www.presby.edu/academics/undergraduate/academic-departments-programs/biology-department/requirements/>

Claflin University

Bioinformatics, BS

<https://www.claflin.edu/academics-research/schools-departments/school-of-natural-sciences-and-mathematics/departments/biology/bioinformatics>

Virginia

Virginia Commonwealth University

Bioinformatics, BS

<http://bulletin.vcu.edu/undergraduate/vcu-life-sciences/center-study-biological-complexity/bioinformatics-bs-concentration-computational/>

Virginia Polytechnic Institute and State University.

Systems Biology, BS

<https://www.registrar.vt.edu/graduation-multi-brief/checksheets.html>

Washington

Whitworth University

Bioinformatics, B.S.

<https://www.whitworth.edu/cms/academics/undergraduate-majors-and-programs/bioinformatics-bs/>

District of Columbia

None

West Virginia

None

East South Central (Alabama, Kentucky, Mississippi, and Tennessee)

Alabama

University of Alabama Birmingham

Bioinformatics, BS

<https://www.uab.edu/cas/bioinformatics/>

Kentucky

None

[Mississippi](#)

None

[Tennessee](#)

Lipscomb University

Computational Biology, BS

<https://www.lipscomb.edu/academics/programs/computational-biology>

[West South Central](#) ([Arkansas](#), [Louisiana](#), [Oklahoma](#), and [Texas](#))

[Arkansas](#)

None

[Louisiana](#)

None

[Oklahoma](#)

None

[Texas](#)

St. Edward's University

Bioinformatics, BS

<https://www.stedwards.edu/undergraduate/bioinformatics>

St. Mary's University

Bioinformatics, BS

<https://catalog.stmarytx.edu/undergraduate/majors-programs/science-engineering-technology/bioinformatics/#tracktext>

Baylor University.

Bioinformatics, Bachelor of Science in Informatics

<https://www.ecs.baylor.edu/index.php?id=961235>

Our Lady of the Lake University

Biomathematics, BS

<https://www.ollusa.edu/cas/programs/mathematics-and-biomathematics/index.html>

Mountain (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming)

Arizona

University of Arizona

Bioinformatics, BS

<https://eeb.arizona.edu/undergraduate/majors-minors/bs-bioinformatics>

Arizona State University

Biomedical Informatics, BS

<https://chs.asu.edu/programs/biomedical-informatics>

Colorado

None

Idaho

Lewis-Clark State College

Bioinformatics BA/BS

<http://catalog.lcsc.edu/academic-programs/natural-sciences-mathematics-division/baccalaureate-degrees/bioinformatics-ba-bs/>

Montana

None

Nevada

None

Nevada

None

New Mexico

None

Utah

Brigham Young University

Bioinformatics, BS

<https://biology.byu.edu/bioinformatics>

Dixie State University

Bioinformatics, BS

<https://catalog.dixie.edu/programs/biology/bioinformatics-bs/>

Wyoming

None

Pacific (Alaska, California, Hawaii, Oregon, and Washington)

Alaska

None

California

California State University-San Bernardino

Bioinformatics, BS

<https://www.csusb.edu/cse/programs/bs-bioinformatics>

University of California, San Diego

Bioinformatics, BS

<https://bioinformatics.ucsd.edu/node/8>

University of California, Santa Cruz

Biomolecular Engineering and Bioinformatics, BS

<https://admissions.sa.ucsc.edu/majors/beb>

Harvey Mudd College

Mathematical and Computational Biology, BS

<https://www.hmc.edu/mathematics/program/majors/mathematical-computational-biology-major/>

Hawaii

None

Oregon

Pacific University

Bioinformatics, BS

<https://www.pacificu.edu/bioinformatics>

Oregon State University

Biological Data Sciences, BS

<https://catalog.oregonstate.edu/college-departments/agricultural-sciences/botany-plant-pathology/biological-data-sciences-bs-hbs/>

[Washington](#)

Whitworth University

Bioinformatics, B.S.

<https://www.whitworth.edu/cms/academics/undergraduate-majors-and-programs/bioinformatics-bs/>

Citation

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<https://biology-colleges.com/bioinformatics-and-biometrics/bachelor>

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<http://careers.cbd.cmu.edu/listing-category/ugrad-compbio-bioinformatics/>

National Center for Education Statistics. (2021). *College navigator - Search results.*

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&od=0&pg=1](https://nces.ed.gov/collegenavigator/?s=all&p=26.1103+26.1199+26.1104&l=93&of=2&od=0&pg=1)

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https://ils.unc.edu/informatics_programs/doc/Bioinformatics_2006

University of Missouri Kansas City. (2020). *Bachelor of Science: Biology - Bioinformatics Emphasis*

<https://catalog.umkc.edu/colleges-schools/sbc/biology/bachelor-of-science-bioinformatics/>