Indiana State University

Computer Science

Academic Programs

- *BS in CS*
  - Concentrations - Computing Science, Data Science, Information Science
- *Minor in CS, CS Teaching*
- *MS in CS*
  - Concentrations - Academic, Bioinformatics, Data Science, Professional

Program Features

- *Core programming*
- *Data structures*
- *Systems* - building/maintaining OS and key programs
- *Theory* - algorithms, efficiency
- *Applied areas* - database, web, networks, AI, data science
- *Software projects*
- *Theoretical understanding*

Related programs

- BS – IT, CET, Cybercrim & Security, Math, MIS
- Minors – CS Teaching, IT, Math
- MS – ECT, Math

Programming Languages

Python, C, C++, Javascript, Html/Css, Php, Sql, Java, R, Haskell, Prolog, assembly, UML, Bash, XML, Smalltalk, Eiffel, Ruby, Latex, Athena, Mongo

Collaborations

Biomedical Big Data for ISU, The Center for Genomic Advocacy, Department of Biology, Department of Earth & Environmental Systems, Porter Cancer Research Center

Community Engagement

Association for Computing Machinery, programming contest, Middle School Science Bowl, High School Summer Honors, Pi Day, Coding Camp, Coder Dojo, IndianaComputes, IDOE

Internships

NSA, Naval Surface Warfare Center, ISU SURE, Police Technical, ISU OIT, ISU

Grant Support

National Institutes of Health, National Science Foundation, Indiana Academy of Sciences, University Research Council, Center for Community Engagement, Indiana Department of Education

After Graduating

Positions programmer, data science, software developer, software engineer, web, database, systems, networking, mobile, cloud

Where Rolls Royce, myCOI, Hewlett-Packard, IBM, Budweiser, Liberty Mutual, Clabber Girl, FireEye, AIM Specialty Health, Genesys, Vincennes University, Indiana State University (OIT, CS, C&M), Oracle, Google, Los Alamos National Labs, NSA, Lockheed-Martin, ARINC, City of Terre Haute, Raytheon, DOE, Anthem, RHIT, Beckham Coulter, Dow, Ely Lilly, Salesforce, Terre Haute (City Govt), ISU

PhD University of Arizona, University of Miami, UT-Dallas, UC-Merced, UC-Riverside, Louisville, Emory University, UI-Chicago, Simon Fraser

More Information

Homepage - http://cs.indstate.edu
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High School

- *Programming* - take a class
- *Math* - do your best
- *For fun* - code.org

Looking for Colleges

- *Apply to* - a few of each of the types that you have a chance of getting into, visit at least one of each type
- *Universities applied to* - check for scholarships (some are not very competitive)
- *Talk to* - people from your HS similar to you who are at different types of colleges
- ***Most important* - you feel comfortable, will do well**

Picking a Major

- *Options* - keep at least two in mind
- *Related to CS* - IT, CIS, MIS, Cyber

First Year in College

Work - 10-20 hours/week preferred
Classes - more important than work
Most important classes - your major

College/University Types

2 year community college - *Ivy Tech* least expensive, faculty positions not as competitive, might prepare you to transfer to university to finish BS, faculty only need to teach

Regional university - *ISU* affordable, students of all types, faculty positions competitive, faculty teach and do research, exposure to graduate coursework/research

Small private - *Depauw, Butler* expensive, mostly strong students, faculty mostly teach / do some research, fewer majors to choose from, not many graduate programs, better brand name

Research university - *Purdue, IU* affordable, mostly strong students, faculty positions more competitive, faculty mostly do research and get promoted by work with PhD students, large classes supported by armies of PhD students, better brand name

Ultra-competitive - *MIT* best students, competition amongst students, similar for faculty, can have good financial aid, best brand name

Internships

- Large companies, DOE labs, government, tech companies, Indeed.com, university job fairs
- Start looking mid-fall for summer positions
- Look for positions during first year, may not get one

MS Programs

- *End of BS* - apply for jobs, if you get a good one take it, if not MS is a good option
- *ISU* - GA possible - tuition waiver, stipend, experience

Computer Science

- *Meritocracy* - put in more time, you'll do better
- *Jobs* - yes!
- *Good pay* - yes!
- *But* - you have to enjoy it
- *What it's like* - programming, debugging, figuring things out, make it faster / more usable / etc., learning new tools / techniques

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