

Notre Dame

Department of Computer Science & Engineering

Job Interview Guide



UNIVERSITY OF
NOTRE DAME



You can search, reflect, and prepare for your interviews anywhere!

“Have patience, and you will find the right job for you!”

Learn about **WHO** the key players are in the interview process and **WHAT** you have to do to start on the right path.

Before preparing for interviews, make sure to reflect on yourself and the ideal company or organization for you. Interviewing with companies is often an energy consuming process, and it is not uncommon that you will have to devote time to learning the art of the interview in order to best represent yourself. So, you have to discern how you learn best. Is it by yourself? In a group of friends? Or by meeting with a professor or mentor? You can always try a combination of these preparation styles to fit your schedule and interview type!

Besides understanding yourself, you must appreciate differences in companies and reflect on what characteristics you are looking for. From discerning the industry and sector of a company, to the size and geographic location of a company, there are many factors that will influence your decision. Check out the student testimonials to learn more about what students have to say.

Begin by casting a wide net of companies that fit your specifications. It is important that you only apply to companies you would be happy at. There is a strong pressure on campus to find the best job and to be the first person to find it. Have patience, and you will find the right job for you! Along with this, keep an open mind to considering different types of opportunities. The best fit for you could end up being a job that you didn't even know existed.

After applying to a wide array of companies, start to learn about the most common types of interviews in Computer Science:

- **Behavioral interview**
You will talk about your resume and past personal projects, teamwork experiences, and challenges you have faced.
- **General programming interview**
The most common type of interview type covering data structures, algorithms, databases, operating systems, and design.
- **Language specific interview**
These interviews test your knowledge about a specific language present on your resume. These are common when you interview with a specific team.



Understanding the logistics – the **WHEN** and the **WHERE** – can help you get one step closer to your dream job.

You can look for jobs from day one at Notre Dame. However, we recommend a more balanced approach to your college career. Spend your first two years developing yourself as a person and a coder. As we mentioned, it is important to learn about yourself and what you are looking for first. You can focus on developing a portfolio where you showcase your talents and passions. During this time, you can also explore companies and their cultures by visiting the career fair and talking to company recruiters, join company visits sponsored by the university or clubs on campus, and even apply to externship programs.

Then, use the summer between your sophomore and junior years to dig into the preparation material. This time is critical to set yourself as a top candidate for any position you want.

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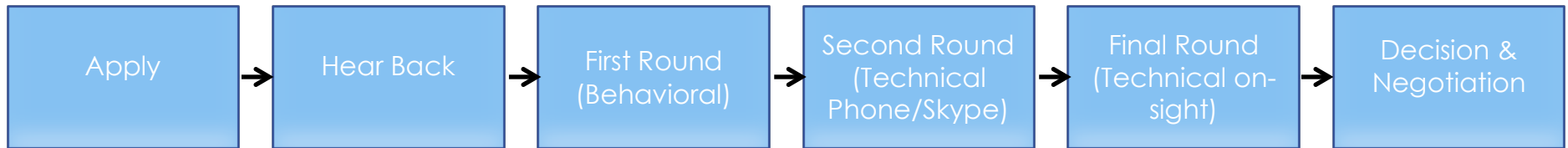
The Department of Computer Science and Engineering teaches and conducts research in computer science and engineering and provides service to the University, the region, the nation, and the world. Faculty and staff strive to develop future leaders in academia and industry, with excellent technical skills, strong characters, and life-long learning abilities.
(cse.nd.edu)

Example careers in CSE:

- **Artificial Intelligence**
The development of computers that simulate human learning and reasoning ability.
- **Computer Design and Engineering**
The design and manufacture of new computer circuits, microchips, and other key electronic components
- **Computer Architecture**
The design of new computer instruction sets, working to combine optical or electronic components to create faster, more cost-effective computing environments.
- **Information Technology**
The development and/or management of information systems that support industry, which can involve hardware, software, algorithms, databases, and man-machine interfaces.
- **Software Engineering**
The creation of methods for the production of software systems quicker and more efficiently.
- **Computer Theory**
The study of fundamental theories of how computers solve problems and eventual application of those findings to other areas of computer science and engineering.
- **Operating Systems and Networks**
The development and implementation of the basic software computers use to supervise themselves or communicate with other computers in a network.
- **Software Applications**
The application of computer science and engineering technology to solve problems outside the field of computer science - for example, medical or educational applications.

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GENERAL TIMELINE



This is the general sequence of events that takes place. It is generally a good idea to start applying to companies in August for the following summer because tech internships recruit early. That being said, companies continue to recruit until March so it can be a long process. Turnaround time looks different for companies, some you hear back from right after applying, and others will reach out months after you submit the application. If you get a contact line to a recruiter it is usually a good idea to follow up after two weeks of not hearing back. Once you have had a first round phone interview you are in the pipeline with a company and they will usually let you know what their specific timeline looks like from there on out.

Four main sources of preparation will guide you when learning **HOW** to prepare for an interview

1. Academic

- Pay attention in class and learn the material.
- Reach out to upperclassmen to schedule mock technical interviews.
- Make an appointment with the Career Center for mock behavioral interviews.

2. Extracurricular Activities

- Computer Club: Stay informed about tech company visits to campus and computing-related opportunities on campus.
- Four Horseman Society: Join in order to tap into the Notre Dame tech-entrepreneurship community.
- Student International Business Council - STEM Division: Join company-specific, semester-long projects with companies in the STEM fields.
- App Club: Work in teams to learn how to build mobile and web applications.
- Regional Hackathons: Weekend long coding events hosted by universities across the country.

3. Outside Preparation Materials

- *Cracking the Code Interview* by Gayle Laakmann McDowell: The go-to resource for technical interview preparation. This book has lots of great examples of the types of questions that you can expect to see on a technical interview.
- Hackerrank: This website has interactive coding challenges that can be used for interview practice. Many companies use the Hackerrank platform or ones like it to vet applicants before moving them into personal interviews.
- Glassdoor: Visit this website to explore some sample interview questions and project starting salaries.

4. Alumni Resources / Networking Events

- Career Fair: Attend the career fair with your resume in hand and talk to ask many recruiters as possible.
- Company Visits (Google, Facebook, Microsoft on-campus events): Look for company visits to explore their unique cultures.
- Golrish.com: In this career center website you will find job postings and other useful resources.
- Alumni contact book: Be sure to find alumni who work in companies you are looking for and reach out to them
- LinkedIn: This is another great tool to reach out to companies.



Build a study plan and stick to it.

Dan took the “you study anywhere” motto to heart. Every morning on his hour long commute to his summer internship he read through *Cracking the Coding Interview* questions. This was during the summer leading up to his junior year. As a result he was well prepared for Fall interviews and received an offer to work at Amazon Robotics.

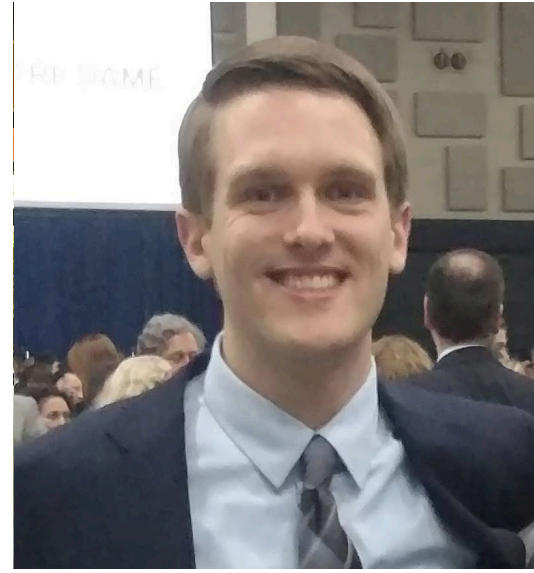
**- Daniel Kerrigan, Junior
(Computer Science)**



Ask the right questions.

Jose always thought about what questions to ask companies he interviewed with. After all, he saw interviews as an opportunity to discern if a company is the place where he wants to be. By asking the right questions, you can learn more about the company culture and help you decide if that is your dream job.

**- Jose Suarez, Senior
(Computer Engineering)**



Don't be afraid to negotiate.

Aaron's story is a great reminder of the huge upside to negotiating a contract. Aaron decided to ask one of the companies that made him an offer for a \$5,000 increase in his starting salary. The company not only granted this increase, but also decided to increase the offer by more than the \$5,000.

**- Aaron Crawfis, Senior
(Computer Engineering)**



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