



## TECHNICAL OPERATIONS DEPARTMENT

### Obfuscation Specialist Application

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Thank you for showing interest in becoming part of the Toontown Team! Before you start filling out this application, there are a few things you should know:

1. **Toontown Rewritten is a volunteer effort.** No income or salary is provided as compensation for anyone's involvement.
2. **Familiarity with engineering and debugging applications is key.** We are looking for applicants who have the following:
  - a. An understanding of interpreted bytecode virtual machines and how they operate, ideally CPython and its associated internals.
  - b. An understanding of how to debug large C/C++ applications where sparse information may be available (i.e. in the form of memory dumps).
  - c. An ability to maintain and troubleshoot CI issues affecting the engine and any third-party dependencies associated with it.
  - d. Familiarity with abstract syntax trees and how to manipulate them.
  - e. Understanding the fundamentals of reverse engineering, x86/x86\_64 and ARM (or equivalent) experience, and how to thwart (or slow down) reverse engineering efforts.
3. **Additional experience is a plus!** While not required, if you have any of the following, we would especially love to receive an application from you!
  - a. An ability to maintain and troubleshoot CI issues affecting the engine and any third-party dependencies associated with it.
  - b. An understanding of cryptography, including cryptographic ciphers, protocols, mathematics, and so on.
  - c. An understanding of low-level operating system internals for Win32 / Darwin / Linux.
  - d. An understanding of compiler design, familiarity with LLVM / IR and how to write passes for it.
  - e. An understanding of computer engineering – especially instruction sets, cache, memory management, and system performance.





## ABOUT THE ROLE

Toontown Rewritten's Obfuscation Specialists are responsible for working to help keep the game safe and free of hackers. You will be using your creativity to design algorithms and tools to ensure that we're always one step ahead of those who are trying to attack the game – all without degrading performance!

## POSITION REQUIREMENTS

- Must be at least 16 years of age.
- Must have a Toontown Rewritten account that is at least six months old.
- Must have enthusiasm and willingness to learn and try new things.
- Be a self-starter and a team player.
- There's a recruiting puzzle hidden inside the Toontown Rewritten game files. Finding it and solving it is a great way to prove your mettle! ~🦋 (NOTE: This is not necessarily a requirement, more so a boost to your application.)

To submit your application, please copy the questions below into an email (and answer them, of course!) then send your email to [support@toontownrewritten.com](mailto:support@toontownrewritten.com). After we receive your email, we'll follow up within a few days and will file away your information until the position is open for recruitment.

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## ABOUT YOU

- What is your full first and last name, preferred name, and preferred pronouns?
- What is your date of birth?
- What language(s) do you speak fluently?
- Do you have a Discord account? If so, what is your username?
- Can you tell us a bit about yourself?
- Can you tell us about your experiences working in a team environment? What did you learn from your experience(s), and what values do you believe are most essential to effective teamwork?
- Why do you want to be an Obfuscation Specialist?
- What do you think you can bring to the table as an Obfuscation Specialist?

## TOONTOWN

- Please list all of your Toontown Rewritten account username(s).
- Do you have any previous infractions (warnings, suspensions, terminations, loss of ability to use SpeedChat+ or submit names) on any of your accounts? If so, what are they?





- How often do you play Toontown Rewritten?
- Are you an active member of any Toontown-related websites or communities outside of the game? If so, where can we find you? Direct links to your profiles would be great!
- How did you hear about Toontown Rewritten hiring?
- Are there any other positions you are interested in other than the one you have applied for? If so, list all that apply.

## TECHNICAL EXPERIENCE

- When and how did you get into computers? What do computers mean to you?
- What operating system(s) do you use? Are you comfortable with any other operating systems?
- What experience do you have with debugging large C/C++ applications?
- Have you ever reverse-engineered something? What tools did you use? What did you learn?
- Do you have any experience with obfuscation tooling (either using, developing, or bypassing)? If so, tell us more!
- What experience do you have with Python? Where would you place yourself on a scale from beginner to expert?
- Are there any other programming languages or technologies you have experience with? How about technologies you haven't yet used but want to try?

## AVAILABILITY

- What timezone are you in?
- When are you usually available on your computer?
- How much time can you commit to your job as an Obfuscation Specialist per week?

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Thank you for taking the time to apply for Toontown Rewritten!

**You *ARE* Toon Enough!**

