• Do you confirm that you are eligible for this internship as stated in our eligibility rules at https://wiki.gnome.org/Internships#Eligibility?. Answer "yes" or "no".

Yes

• Do you confirm that you have read and agree with the internship contract linked at https://wiki.gnome.org/Internships#Eligibility?. Answer "yes" or "no".

Yes

## == Personal Information ==

If you are accepted, fields in this section that are marked "(public)" will be displayed on a public acceptances page. If you prefer different information to be displayed publicly than you want to provide in this form, please provide both a private version visible only to the coordinators and mentors of the internship, and a public version to be displayed publicly.

- Name (public): Shreyansh Khajanchi
- Preferred pronoun (e.g. she, he, they): He
- E-mail address: mr.shreyanshk@gmail.com
- Blog URL (public, required): <u>https://shreyanshja.in/</u>
- IRC nick (public, optional): shreyansh\_k
- Twitter URL (public, optional): Not on twitter
- Website or Portfolio URL (optional): <u>https://shreyanshja.in/</u>
- GitHub, GitLab, or any other code repository URL (optional): <u>https://github.com/shreyanshk/</u>
- LinkedIn URL (optional):
   <u>https://www.linkedin.com/in/shreyanshk/</u>

- Any other online presence URL you wish to provide: None
- Location (city, state/province, and country) (public): Chennai, Tamil Nadu, India
- Education completed or in progress (include university, major/concentration, degree level, and graduation year):

Education in progress. B.Tech - Computer Science & Engineering Vellore Institute of Technology, Chennai, Tamil Nadu, India June 2019 - expected graduation

• How did you hear about this internship? A friend told me about it.

## == Project Information ==

- What project are you interested in? Credentials Management Link: <u>https://wiki.gnome.org/Design/Apps/PasswordsAndKeys</u>
- Who is a possible mentor for the project you are interested in? Tobias Mueller : <u>https://wiki.gnome.org/TobiasMueller</u>
- Please describe your experience with the GNOME community and GNOME projects as a user and as a contributor. Some experience with GNOME stack and some contributions to GNOME are required for considering the application. Include information and links to the contributions you made:

I have been a GNOME user for a long time and I started with GNOME on Ubuntu. After some time, I switched to Arch Linux and installed GNOME on it as well. I've generally enjoyed the clean and user friendly approach of GNOME, which is also the reason why I installed GNOME in my home's shared desktop computer along with Fedora operating system because I am sure that everybody, who are not as technically inclined as I am, can use the computer easily. I personally use many applications such as Terminal, Gedit, Evince, Nautilus and Lollypop daily.

I submitted a patch to GNOME ToDo when I would regularly use the software some time in the past before switching to a similar application on mobile. The patch and the relevant details can be found here:

(<u>https://bugzilla.gnome.org/show\_bug.cgi?id=773852</u>). Similarly, I also interacted with the the developer of Lollypop music player and the relevant details can be found here:

(<u>https://gitlab.gnome.org/World/lollypop/issues/1385</u>).

• Please describe your experience with the project you are interested to participate as a user and as a contributor and relevant areas. Include information and links to the contributions you made:

The project that I hope to develop is, I believe, from scratch by taking the suggested mockups and turning it into functional product. I've limited experience with Seahorse, which serves similar purpose to what I will be developing. I think that Seahorse serves its intended functionality very well and may use some work to make it more consistent with the GNOME ecosystem aesthetically.

Which is why I intend to develop the suggested Credential Management system which would be well integrated and consistent with the rest of the ecosystem.

Some projects I've contributed (in no order) include:

Mellowplayer
 Desktop integration for various cloud based music services.
 Commit link:
 <u>https://github.com/ColinDuquesnoy/MellowPlayer/commit/9717a32cccd04582c59</u>
 <u>049c1a03d72ea473ec1d9</u>
 Added support for Wynk Music (Indian music service).

- BootTorrent (<u>https://github.com/shreyanshk/boottorrent</u>)
   Worked during Google Summer of Code 2018 for Debian.
   All the code was written by me and can be seen in the commit history. Some commits by the mentors are there but they only touch documentation.
- Rucio CERN
   Issue link: <u>https://github.com/rucio/rucio/issues/705</u>
   Commit link:
   <u>https://github.com/rucio/rucio/commit/2b316b37ea949cf181a7865ec5d2ec8c438</u>
   <u>9f946</u>
   Worked on a bug.

And, In the past when I was an active user of the ToDo app, I submitted a patch to fix a minor aesthetic annoyance. Later, I switched to a similar app on the mobile so didn't manage to get the patch upstream.

Patch link:

https://bug773852.bugzilla-attachments.gnome.org/attachment.cgi?id=350742 Discussion link: https://bugzilla.gnome.org/show\_bug.cgi?id=773852 • Please describe your experience with any other FOSS projects as a user and as a contributor:

Some OSS projects/contributions I'd like to talk about are:

- BootTorrent (<u>https://shreyanshja.in/blog/gsoc18--debian-report/</u>) Developed during Google Summer of Code'18 for Debian, the project was to create a novel P2P based network booting solution.
- Flask-Firehose (<u>https://github.com/shreyanshk/flask-firehose</u>)
   Python Flask lacks HTTP/2 Server Push support. So, wrote an implementation to use in projects and later open sources it.
- Contributor to Rucio CERN

   (<u>https://github.com/rucio/rucio/blob/master/AUTHORS.rst</u>)
   Worked on a bug and wrote a test case to handle it.
- Contributor to Deepin Terminal

   (<u>https://github.com/manateelazycat/deepin-terminal/issues/62</u>)
   Reported a bug in event processing and proposed a patch to fix the bug.

More contributions, projects and their details can be found here: (<u>https://www.github.com/shreyanshk</u>)

• Please describe any relevant projects that you have worked on previously and what knowledge you gained from working on them (include links):

Previously, I worked on BootTorrent during the Google Summer of Code'18 and learned the Go programming language, gained deeper understanding of design of Linux based Operating systems and most importantly the value of grit and persistence because I faced many issues while working on it but was eventually able to overcome them with lot of efforts and continuous support from my mentors.

I also learned how to work remotely effectively, document projects properly, writing formal documentations and properly using Git and GitHub.

• Please describe the details and the timeline of the work you plan to accomplish on the project you are most interested in (discuss these first with the mentor of the project):

I'll use Python with the PyGTK library to implement the software.

- Upto Dec 1, 2018
  - Research about implementation possibilities and software packages that can be helpful during the development.
  - Get familiar with community coding practices.
  - Setup computer for development process.
- Dec 1, 2018 Dec 15, 2018
  - Start with designing/coding a wireframe user interface.

- $\circ$   $\;$  Use tools such as Glade to create base interface XML files.
- Use PyGTK and programatically display dummy values.
- Dec 16, 2018 Dec 29, 2018
  - Discuss with mentors about security implications of the proposed techniques.
  - Implementing application logic and displaying actual values.
    - Saving Username/Email/ID + password combinations.
    - Key based systems such as SSH.
- Dec 30, 2018 Jan 12, 2019
  - Implement APIs to programmatically manipulate the data store.
  - Implement CRUD operations usable by external apps.
- Jan 13, 2019 Jan 26, 2019
  - Fix bug and issues as they occur.
  - Test implementation and integration of various components.
- Jan 27, 2019 Feb 9, 2019
  - Package the software for various distributions.
  - Example: Debian, Arch or as requested by community.
- Feb 10, 2019 Feb 28, 2019
  - Buffer period.
  - Work on requests by the community of the mentor.