Tirtha Kharel

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EDUCATION

- **University of Pennsylvania** — Philadelphia, PA
  B.S.E./M.S.E. in Computer Science; Minor in Data Science & Statistics — *Aug. 2018 – May 2022*

  <u>Relevant Coursework:</u> Programming Languages and Techniques, Discrete Mathematics, Data Structures and Algorithms, Advanced Linear Algebra

EXPERIENCE

- **Penn CIS** — Philadelphia, PA
  Research Assistant — *May 2019 - Present*
  - Utilizing *Drupal, SQL, AWS, ApacheSolr, PHP, R, and Python* to build a data collection website for an EPA-funded research project on lead levels in water around the U.S. Once the website goes live, people will be able to take a survey on their water quality and I will use the data to create a predictive model for testing the presence of lead in water without lab tests.

- **Glome** — Philadelphia, PA
  Software Engineer — *Oct. 2018 - May 2019*
  - Worked with a team to create a mobile translation application (using *Swift* and *Trello*) that assists in the day-to-day communication between caseworkers and refugees in Philadelphia-area resettlement agencies.
  - The app has over 23 phrases translated in over 20 languages and is in the process of being implemented by HIAS Philadelphia.

- **Houston Astronomical Society** — Houston, TX
  Lead Programmer — *Aug. 2017 - June 2018*
  - Worked with a small team on astrophysical research underneath a Princeton University post-doctoral fellow. We were able to present our findings to the Houston Astronomical Society (HAS).
  - Used *Python (AstroPy, NumPy, MathPlotLib, etc.)* in order to represent and analyze data gleaned using *SQL* from the NASA SDSS database

PROJECTS

- **Personal Website:** Created a website using *HTML/CSS*, *JavaScript* and *UIKit* (tirthakharel.com).
- **Spades:** Created a simple version of the card game Spades using the *Java Swing* library.
- **Everest Energy:** Working on a website for oil and gas startup Everest Energy.
- **PennBuys:** Working on a Facebook marketplace replica just for students at Penn.

LEADERSHIP/AWARDS

- **Penn ESAC** — Philadelphia, PA
  PR Chair — *Sep. 2018 - Present*
  - Handle the marketing to promote ESAC (Engineering Student Activities Council). Responsibilities include, but are not limited to, designing flyers, renovating the website, and handling social media.

- **Awards:** National Merit Finalist, NASA High School Aerospace Scholar, National AP Scholar

SKILLS/INTERESTS

- **Skills:** AWS, Django, Flask, Git, Microsoft Office Suite, LaTeX, Nepali, Hindi, Conversational German
- **Languages:** Java, OCaml, Python, Swift, SQL, HTML/CSS, PHP, JavaScript
- **Interests:** Classical Guitar, Basketball, Healthcare Policy