



# SKYLER RANKIN

## EDUCATION

### University of Pennsylvania

*Expected graduation May 2021*

- Computer Science Candidate, Entering 4<sup>th</sup> Year
- Coursework includes Algorithms, Compilers, Discrete Math, Complexity Theory, Computer Architecture, Operating Systems, and Machine Learning.

## WORK EXPERIENCE

### Amazon, SDE Summer Intern

*May 2020 – Aug 2020*

- Designed, implemented, and deployed significant infrastructure updates to an existing system within the Alexa AI organization that improved service reliability.
- Worked alongside full-time engineers in the same codebase, utilizing AWS tools at a deep level as well as developing custom internal Amazon tools.

### Amazon, SDE Summer Intern

*May 2019 – Aug 2019*

- Developed scalable, cloud-based internal tools within Alexa AI organization, used by over 100 NLU developers and researchers nation-wide.

### GP Strategies, Summer Intern

*May 2018 – Aug 2018*

- Developed a production-level chatbot on top of the Microsoft Bot Framework using C#. Reached over 400 employees and clients to automate service desk ticket requests as well as employee purchase confirmations.
- Held user feedback meetings to develop a list of desired application features and worked with other developers to fill chatbot backend database.

### GP Strategies, Summer Intern

*May 2017 – Aug 2017*

- Utilized Azure web services and VSTO add-ins to provide sentiment analysis on company email threads. Software was added to the Outlook applications of hundreds of IT employees. Utilized the Neo4J database for graphical data storage of corporate employee information.

## ACADEMIC EXPERIENCE

### CIT 593 & CIS 240, Teaching Assistant

*Sep 2019 - Present*

- Course focuses on understanding computer architecture, covering processor design, assembly, and C programming.
- Hold weekly one-hour recitations to review concepts from lecture, host several office hours each week, as well as grade student homework and exams.

### PennLabs, Android Developer, [pennlabs.org](http://pennlabs.org)

*Sep 2018 – Aug 2019*

- Part of a 30-person team that produces applications reaching thousands of Penn students, consolidating data related to all facets of student life for easy mobile and online access. Use modern technologies such as Kotlin and Circle CI.

### UPGRADE, Programming Lead, [pennupgrade.com](http://pennupgrade.com)

*Sep 2017 – Present*

- Lead programmer on a 2D OpenGL Java based science fiction RPG, as one of the projects in the UPenn Game Research and Development Environment.
- Direct a team of 4 developers in building separate components that are version controlled and merged weekly.

### Dr. Daniel Gillion, Paid Research Assistant

*Oct 2017 – Aug 2019*

- Use Python to write web crawlers that gather data on political activism and social inequality, as well as use R to run analysis on this information.
- Manage Terabytes of data in a PostgreSQL database for government financial records.

## LANGUAGES

### Comfortable with

- Java
- JavaScript
- Python
- C/C++
- C#
- HTML/CSS

## SKILLS

- Cloud development
- AWS Technologies
- RESTful API design and construction
- Front End Dev: React, Redux, Webpack
- Android Development
- Python Web Scraping
- ECS architecture
- Unity Game Development
- Unit Testing with Junit, Jest, Mocha, Enzyme
- Writing useful documentation

## SIDE PROJECTS

Please visit [skylerrankin.org](http://skylerrankin.org) for more information

- Thorough documentation of JPEG image decoding
- An HTML/CSS only web-browser using a renderer written from scratch.
- Clean, minimal web app to make flash cards with variable number of sides.