

# Pratik Karki

pratikkarki.com | Github | PGP Public Key

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## EDUCATION

M.Sc. in Computer Science **University of Iowa** Iowa City, IA Aug. 2020 – May 2021B.A. in Computer Science | 3.5/4.0 **Grinnell College** Grinnell, IA Aug. 2016 – May 2020

- Teaching Assistant - Grinnell CS Department (CS-207, CS-301, CS-324)
  - Mentored over 30 students with individualized Rails projects and 5 projects with community partners
- Completed Courses:** Algorithms, Web Mining, Software Development, Computer Architecture, Formal Methods
- Current Courses:** Database Systems, High Performance Computing, Distributed Systems and Algorithms

## EXPERIENCE

Software Developer Extern (Project Link) **VandyHacks/Water Walkers** Remote July 2020 - Present

- Operated as Full-Stack lead to develop and deploy a **Flask**, **SQLite**, **Jinja** based web app for a non-profit partner
- Engineered features such as user-login authentication, event updating, and attendance tracking using client input

Software Engineering Intern **Source Allies (Rescinded: COVID-19)** Des Moines, IA Summer 2020Research Assistant **Grinnell College CS Department** Grinnell, IA Jan. 2020 – May 2020

- Developed a Recommender System for E-Commerce Products using **Amazon Datasets**
- Consolidated Association Rule Learning with **Apriori**, K-means Clustering with **Scikit-Learn**, and Embedded Neural Networks with **Keras** for a robust analysis on both the implicit and explicit data of the Amazon Products
- Utilized **Spark** for ALS Matrix Factorization and NLTK/VADER for **Sentiment Analysis** of Reviews and Metadata

Software Engineering Intern **CareDash** Cambridge, MA Summer 2019

- Resolved **Elasticsearch** `max_result_window` issue which reduced Crawler-induced 500 error pages by 15%
- Enhanced **JQuery** based front-end with **A/B Testing** and a filter for providers specializing in LGBTQ+ individuals
- Developed comprehensive testing infrastructure using **Mocha** and **Selenium** (unit, integration, acceptance tests)

Android Developer & Team Leader **Grinnell AppDev** Grinnell, IA Jan. 2017 – Dec. 2019

- Designed, developed, and maintained 5 Android applications for Grinnell College Community using **Android SDK**
- Led a team of four to develop **Grinnell Events** with regular Trello-based workflow and Mojito based unit-testing

## PROJECTS MORE ON GITHUB!

YoutubeNLP (Summer of Shipping) Jun. 2020 – Present

Youtube Analytics Dashboard to assess Micro and Macro trends

- Build a dynamic and Docker-ized back-end using **Flask**

Nastya Chatbot (Code) Feb. 2020 – May 2020

Chatbot that uses **Facebook Messenger** data hosted on **Heroku**

- Implemented TF-IDF algorithm using Elasticsearch and Bulk API
- Hosted on Heroku with a **Bonsai add-on** using Flask back-end

Feed Me Aug. 2018 – Dec. 2018

Personalized Android recipe app utilizing **Food2Fork API**

- Created an option to persistently save recipes in Favorites page
- Selected as Best Team Project at AIT Budapest! (Study Abroad)

Local Foods Connection (Code) Jan. 2018 – May 2018

Ruby on Rails app for finding **sustainable food options** in rural Iowa

- Engineered admin page to edit registered farms in the database
- Serves 4000+ monthly users in the Grinnell College community

## SKILLS & INTERESTS

### Languages

Java, Python, Ruby, Javascript, CSS3,  $\text{\LaTeX}$ , C, Go, Kotlin, MySQL

### Technologies

React-Native, Docker, Tensorflow, Flask, JQuery, Node, Rails, Elasticsearch

### Interests

Guitar, Animal Fostering, Hiking, Spanish

## RECOGNITION

- Dean's List 4x (Grinnell College)
- ACM Richard Tapia Celebration of Diversity in Computing Scholar (2019, 2020)
- Noyce/Intel Internship Grant (2018)
- CLS Conf. Grant - DotGo Paris (2020)
- Global Learning Program** Fellow (2017)