

Abdul-Karim K. Rai

Portfolio: aykae.com | GitHub: [aykae](#) | LinkedIn: [A.K. Rai](#)

EDUCATION

UNIVERSITY OF PENNSYLVANIA

M.S.E. in Computer Graphics and Game Technology

Relevant Coursework: Computational Linguistics (NLP), Computer Animation, Engineering Entrepreneurship

Philadelphia, PA

Aug 2022 - May 2024

THE PENNSYLVANIA STATE UNIVERSITY

B.S. in Computer Science

GPA: 3.830/4.000; Honors: Cum Laude

Relevant Coursework: Systems Programming, Machine Learning & AI, Database Management

State College, PA

Aug 2019 - May 2022

WORK EXPERIENCE

PENN BIOTECH 3D FABRICATION LAB

3D Printing Lab Intern

- Providing a robust 3D printing service for researchers and students at Penn's Medical, Veterinary, Dental schools
- Operated FormLabs SLA printers, and Stratasys and Ultimaker FDM printers
- Designed connection mechanisms in Autodesk Meshmixer to allow larger print orders to snap together

Philadelphia, PA

Jun 2023 – Present

APPIAN CORPORATION

Software Engineer Intern

- Worked on an agile team of 10 that developed resilient services for customer sites
- Repurposed Grafana dashboards to display Prometheus times series' for new k8s sites
- Won Intern Hackathon: built-in image search for UI Builder + native image effect API

McLean, VA

Jun 2021 – Aug 2021

LOCKHEED MARTIN / NITTANYAI

Research Intern

- Worked with a team of 6 to research and employ drone rescue simulation environments
- Generated 3D terrain environments using BlenderGIS + open source map data
- Developed software allowing simulated drones to parse LiDAR point cloud data

State College, PA

Aug 2020 – Jan 2021

ABC FITNESS

Software Engineer Intern

- Trained ML model using NLP techniques to handle gym member freeze requests during COVID-19 Pandemic
- Developed a Python API (Django) to allow integration of model into automated pipeline

Dallas, TX

Jun 2020 – Aug 2020

VENTURES

EASYA: Spaced-Recall iOS Study App | aykae.com/easya

- iOS study app that curates periodic review sessions based on course curriculum
- Published to App Store (2.7K installs) under our ed-tech company Tryber Inc.
- Designed and developed the app with Swift: UIKit, Alamofire, iOSMath
- Developed a REST API with Django, deployed to AWS EC2, S3 buckets for media storage

Aug 2020 - Present

STARBOX: Decorative Animated LED Signs | aykae.com/starbox

- Decorative desk accessory that displays procedurally generated star patterns using an LED matrix
- Programmed LEDs using an Interstate 75 Matrix Driver, which runs on MicroPython
- 3D modeled, printed, and fabricated enclosed case with screws using Autodesk Fusion 360

Nov 2022 - Feb 2023

ADDITIONAL

Technical Skills: Python, Java, Swift, Django, C++, Git, AWS, Fusion 360, CircuitPython

Activities: Contributing Writer for [Fenjan Magazine](#); Social Media Editor for [Onward State](#)

Languages: Native in English; Conversational in Arabic, French