Alexa Rockwell

a.rckwll@gmail.com | +1 (914) 325 4838 | alexarockwell.com | Cupertino, CA

EDUCATION

Stanford University   **March 2022**
SCPD Graduate Certificate in Artificial Intelligence   Palo Alto, CA
- Relevant Coursework: Deep Learning, Artificial Intelligence: Principles and Techniques, Introduction to Robotics

Stony Brook University   **May 2018**
Bachelor's Degree in Computer Science   Stony Brook, NY
- Leadership: Honors Computer Science Program at SBU, Dean's List, Stony Brook Computing Society President
- Experience: Teaching Assistant for Computer Languages Course

EXPERIENCE

Apple   **January 2019 – Present**
Software Engineer   Cupertino, CA
- AR/VR Organization (September 2021 - Present)
  - Developed augmented reality applications with user experience in mind; part of a top-secret product release.
  - Worked closely with Apple's Human Interface design team to define the next generation of computing.
  - Collaborated cross-functionally with augmented reality, virtual reality, machine learning, and computer vision framework teams to support user-level interactions.
- Photos Organization
  - Contributed to on-device graph database API, inference pipelines, and front-end features in the Photos app, used by millions of users around the world.
  - Engineered the Memories Music feature, which matches Apple Music songs to user's photo content, using a curation pipeline and scalable infrastructure. Regularly facilitated cross-team communication and mitigated server load balancing use-cases.
  - Raised internal dataset collection mechanism to qualitatively evaluate predictive algorithms.

Blackstone   **June 2018 – December 2018**
Software Engineer   New York, NY
- Enhanced interface that calculates investment fund scenarios dynamically; optimized website loading speed and server-side calculations by integrating a Redis cache.
- Utilized tree data structures to calculate management fees, report growth over time, and evaluate hypothetical fund scenarios.

Softheon   **June 2017 – May 2018**
Software Engineering Intern   Stony Brook, NY
- Built software and automation solutions for health insurers and government health agencies.
- Worked with back-end applications which allow millions of people to enroll in and obtain healthcare.

PATENTS

- Chapman, Nathaniel. 2020. Automatic Media Asset Suggestions for Presentations of Selected User Media Items. P54297US1, filed 5/6/2022. Patent pending.
- Rekik, Sabrine. 2020. Inclusive Holidays. P54295US1, filed 5/6/2022. Patent pending.

PROJECTS

- **Stanford 3D Reconstruction Project (2022) —** Compared and contrasted approaches to 3D reconstruction, specifically learning based approaches using voxel grids, point clouds, and neural radiance fields.
- **Stanford Deep Learning Project (2021) —** Trained TinyYOLO object detection NN on augmented Multiple Object Tracking (MOT) dataset to detect partial bounding boxes for a person from camera input. Deployed it on a robot with a Raspberry PI and used naive trajectory planning to advance the robot to a person.
- **Buddy (2018) —** iOS augmented reality project with user interaction and sentiment analysis for real time user input classification and reaction.

OTHER

- **Technical Skills**: Swift/Objective-C SwiftUI, RealityKit, CoreData, ARKit, Python numpy, sklearn, OpenCV, C++, sqlite/relational databases
- **Languages**: English (native), Russian (fluent)