

# Alan Nguyen

## EDUCATION

**University of California, Berkeley**  
Computer Science, B.A.

Expected: Fall 2019

- > **Relevant Coursework:** Operating Systems, Databases, Computer Graphics, Computer Security, Computer Vision, Algorithms, Data Science, Computer Architecture, Data Structures, Linear Algebra
- > **Programming Languages:** Python, C/C++, Golang, Java, JavaScript (React, Node.js), HTML/CSS, Scala
- > **Tools/Technologies:** Docker, Git, LaTeX, Redux, AWS, Figma, PostgreSQL

## WORK EXPERIENCE

May - August 2019

**Akamai** | Fort Lauderdale, Florida  
Software Engineering Intern

- > Shipped a browser application for 200+ security specialists worldwide to optimize workflow for handling security threats. **[React, Redux, Electron]**
- > Built core backend features used to assess customer data. **[Node.js, Scala, Postgres]**
- > Developed a real-time monitoring system, enabling efficient communication amongst security specialists. **[Node.js]**

**Fox Networks** | Los Angeles, CA  
Software Engineering Intern

June - August 2018

- > Deployed a cloud-based analysis tool to perform 24/7 real-time monitoring across 200+ TV stations, networks, and live streams. **[Node.js, AWS]**
- > Constructed a data pipeline in order to visualize data analytics and improve consistency. **[Node.js, Splunk]**
- > Prototyped an image detection feature for MPEG-DASH and HLS live streams using GStreamer, AWS Rekognition, and DeepLens. **[C, Python, AWS]**

## PROJECTS

> **Pathfinder** [C++] — [alandn.io/pathtracer](https://alandn.io/pathtracer)

Physically-based renderer that generates images based on 3D COLLADA models and a pathtracing algorithm.

> **Mosaic Builder** [Python, OpenCV] — [alandn.io/mosaic-builder](https://alandn.io/mosaic-builder)

Application that uses a series of images to computationally construct mosaics using the Multi-Scale Oriented Patches (MOPS) algorithm.

> **Visualizer** [React, Three.js, GLSL] — [alandn.io/hex](https://alandn.io/hex)

Web application that generates a 3D interactive model based on audio data queried from SoundCloud API and custom shaders in GLSL.

> **ClothSim** [C++, GLSL] — [alandn.io/clothsim](https://alandn.io/clothsim)

Real-time simulation of cloth using a mass and spring based system.