# Alan Nguyen

### **EDUCATION**

### University of California, Berkeley

06/17 - 12/19

Computer Science, B.A.

- > 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, HTML/CSS
- > Tools/Technologies: Docker, Git, React.js, Redux, Node.js, SQL
- > Relevant Knowledge: Web Applications, UI/UX, API Design, Machine Learning

### WORK EXPERIENCE

### Akamai | Fort Lauderdale, FL

05/19 - 08/19

Software Engineer Intern

- > Deployed a desktop application for 200+ security specialists worldwide to optimize workflow for handling security threats. [React, Redux, Electron]
- > Designed a real-time monitoring and chat system with web sockets. [Node.js]
- > Engineered core backend features used to assess customer data. [Node.js, Scala, Postgres]

### Fox Networks | Los Angeles, CA

06/18 - 08/18

Software Engineer Intern

- > Developed a cloud-based analysis tool to perform 24/7 real-time monitoring across 200+ TV stations 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. [C, Python, AWS]

## **PROJECTS**

### > Spectra — alandn.io/spectra

- Scalable web application that stores user info and generated art styles. [React, Redux, GraphQL, Django]
- Implementation of the <u>neural style transfer</u> algorithm with generative adversarial networks (GANs). [Python, PyTorch]

### > Pathfinder [C++] — alandn.io/pathtracer

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

#### > ClothSim [C++, GLSL] — alandn.io/clothsim

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

### > Visualizer [React, Three.js, GLSL] — alandn.io/hex

Web application that generates a 3D interactive model based on audio data gueried from SoundCloud API.

### > Mosaic Builder [Python, OpenCV] — alandn.io/mosaic-builder

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