VIVIEN NGUYEN

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https://viviehn.github.io

EDUCATION

University of California, Berkeley   Expected Graduation: May 2019

Computer Science, B.A.   GPA: overall 3.59, post 2nd year 3.71

WORK EXPERIENCE

Pioneers in Engineering

CEO, Foundation   **Berkeley, CA (Sep 2018 – present)**
- I currently serve as chief executive officer of Pioneers in Engineering Foundation, a 501(c)(3) STEM outreach organization, originally founded to support the Pioneers in Engineering student group

Director   **Berkeley, CA (May 2017 – May 2018)**

https://pioneers.berkeley.edu, a UC Berkeley nonprofit that hosts a robotics competition and other outreach events for local Bay Area high school students to promote STEM education
- Led 60 UC Berkeley students across 12 engineering, education, operational, and mentorship projects to develop and run a robotics competition, serving 21 high schools and 300 students
- Maintained and developed long term partnerships with alumni, university contacts, high school teachers. Interfaced with corporate sponsors from companies like Texas Instruments and Gitlab
- Managed a $60,000 budget, one of the largest of any student group at Berkeley, while devising additional funding opportunities and ways to cut costs, to end with a $30,000+ surplus -- the largest in our organization's 10 year history

Staff Member   **Berkeley, CA (Aug 2015 – present)**
- Led Web Design, Infrastructure, Staff Recruitment, and Event Planning projects

UC Berkeley EECS Department

Undergraduate Researcher, Visual Computing Systems   **Berkeley, CA (May 2018 – present)**
- I currently work with Cecilia Zhang (advised by Prof. Ren Ng) on her work regarding computational video editing and synthetic depth of field
- Captured image and video inputs, and developed a user-friendly video editing interface to collect training data

Undergraduate Student Instructor   **Berkeley, CA (Aug 2017 – present)**
- UGSI: Computer Graphics (Sp18, Sp19), Networking (Fa18)
  - Teach a weekly discussion section to supplement lecture material
  - Evaluate, design, and implement course structures to support student learning
- Tutor: Data Structures & Algorithms (Fa17)

NVIDIA

Graphics Developer Intern   **Santa Clara, CA (May – Aug 2019)**

Content and Developer Technology

Architecture Intern   **Santa Clara, CA (May – Aug 2018)**

Hardware Performance Infrastructure
- Built software tools to increase visibility into performance analysis for current and futue chips
- Secured a tool to collect GPU performance monitor data for external customers who otherwise lack visibility into fine-grained performanc metrics
- Prototyped a workflow to increase visibility into different sections of new raytracing workload due to new RTX technology

Braintree (PayPal)
Software/DevOps Engineering Intern   **San Francisco, CA (Jun – Aug 2017)**
Cloud Infrastructure
- Built and maintained AWS-based platform with reduced cost and service latency for Braintree's new cloud services; platform is currently authorizing live transactions from major enterprises
- Devised and documented a way to migrate to a new AWS region, which had never been done before at the company

SKILLS & INTERESTS

Relevant Classes: Computer Graphics, Computational Photography (IP), Probability & Random Processes (IP), Data Structures, Machine Structures, Algorithms, Linear Algebra, Operating Systems, Networking, Artificial Intelligence, Art History of Interactive Media, Game Design Methods (IP)

Research Interests: Physically-based rendering techniques; pathtracing; visualization, digital distribution, and analysis of cultural heritage and classical art, digital reconstruction, interactions and perceptions of color, computational photography and image editing, image-based rendering, interactive media and visual experiences