

Max Hudnell

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EDUCATION

University of North Carolina at Chapel Hill May 2019

MSc in Computer Science

Coursework: 3D Computer Vision, 2D Graphics, Medical Image Analysis, Computational Geometry, Machine Learning, Generative Methods in ML, Distributions in ML, and more!

University of North Carolina at Chapel Hill May 2017

BSc in Computer Science, BA in Mathematics

PUBLICATIONS

Hudnell, Max, and Steven King. "Health Greeter Kiosk: Tech-Enabled Signage to Encourage Face Mask Use and Social Distancing." *ACM SIGGRAPH 2021 Emerging Technologies*. 2021. 1-4.

Hudnell, Max, True Price, and Jan-Michael Frahm. "Robust Aleatoric Modeling for Future Vehicle Localization." *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops*. 2019.

- [CVPR 2019 Precognition Workshop](#) — best student paper

WORK EXPERIENCE

UNC Emerging Technologies Lab, *Computer Vision Engineer* Jan '20 – Present

- Lead architect of cost-friendly solution for volumetric capture
- Lead architect for a computer vision-enabled kiosk capable of mask and social distance detection

UNC Emerging Technologies Lab, *Software Engineer - Android* May '19 – Jan '20

- Lead designer of dual **Android applications** for **remote control** of a Segway self-balancing robot
 - Implemented remote procedure calls (RPC) to enable inter-app communication
 - Presented at **The Online News Association Conference 2019**

UNC 3D Computer Vision Lab, *Research Assistant* Jan '18 – June '19

- Performed network regression to **predict object trajectories / localizations**
- **Modeled uncertainty** in our predictions and compared distribution-type effectiveness
- Proposed a new technique for **predictive distribution evaluation**

UNC CS Department, *Teaching Assistant* Aug '16 – May '19

- **COMP 475**: 2D Graphics; **COMP 550**: Algorithms; **COMP 411**: Computer Organization
- Assisted students with **C/C++**, **MIPS**, and **SQL** programming
- Held lectures, interactive **git** tutorial sessions, extensive office hours

Bandwidth, *Software Development Intern* May '18 – Aug '18

- Created a **NodeJS** library for *visual regression testing* of **ReactJS** components
 - **400+ downloads**, available on npm: [hubble-x](#)

Participate Learning, *Software Engineer Intern* Feb '16 – Feb '17

- Created an **interactive data visualization** application using **JavaScript**, **ASP.net**, and **SQL Server**

VOLUNTEER EXPERIENCE

SIGGRAPH 2019, *Student Volunteer* July 2019

- Assisted operations of the VR Theater, art installations, studio workshops and research exhibitions

SKILLS

Programming languages: C++, Python, Java, JavaScript, SQL, MATLAB

Software experience: Git, Android Studio, OpenCV, Keras, PyTorch, NodeJS, Ionic