

EDUCATION

- **Georgia Institute of Technology** Atlanta, GA
Bachelor of Science in Computer Science; Minor in Linguistics; GPA: 4.00/4.00 Aug 2018 – May 2022

EXPERIENCE

- **Square** Atlanta, GA
Software Engineering Intern - Commerce ML. Supervised by Dr. Marsal Gavaldà. May 2019 - Aug 2019
 - **Taxicon:** Generated tax code + item knowledge graphs from unstructured text data. Modified prior classifiers to use generated knowledge graphs.
 - **Square Trends:** Developed and deployed an internal tool for identifying trending items sold by Square merchants. Analyzed n-gram frequencies for millions of transactions per day. Presented to CEO (Jack Dorsey) + Core.
 - **Inferred Hours:** Integrated intelligent emailing features in Squares's production mailing service (Ruby), wrote gRPC endpoints. Sent millions of sales summaries per day based on predicted merchant opening times.
- **PoloClub - Georgia Institute of Technology** Atlanta, GA
Research Assistant. Supervised by Dr. Polo Chau and Dr. Diyi Yang. Jan 2019 - Present
 - **Recast:** Suggesting alternate wordings for potentially toxic sentences by analyzing attention in Transformer models and editing sentences to optimize for a less toxic output.
 - **CNN Explainer:** A web-based learning tool for exploring properties of multilayer CNNs, allowing users to view activations and interact with convolutions.
 - **Argo:** Working on a cross-platform app for visualizing million edge-networks using React, WebGL, and Electron. Argo is currently used in CSE 6242 (Data and Visual Analytics), a course with over 1000 students.
- **Virtual Embodiment Lab - Cornell University** Ithaca, NY - Dhahran, Saudi Arabia
Research Assistant. Supervised by Dr. Andrea Won. Aug 2016 - May 2018
 - **SynchronousFidelity:** Used Unity + Node.js to develop collaborative virtual environments for embodied virtual interactions. Created a RESTful server to handle thousands of requests/min between a VR client and a backend. Designed virtual entities that respond to changing synchrony.
 - **Misc. Research:** Analyzed behavioral differences between conversations held in VR and real life. Explored different techniques (R correlation, DTW) for identifying synchronous behaviour. Published work in IEEE VR.

SELECTED PUBLICATIONS

- **Omar Shaikh**, Yilu Sun, Andrea Stevenson Won (2018). Movement Tracker for Networked Virtual Reality Platforms (Poster). IEEE Virtual Reality, March 2018, Reutlingen, Germany.
- Zijie J Wang, Robert Turko, **Omar Shaikh**, Haekyu Park, Nilaksh Das, Fred Hohman, Minsuk Kahng, Duen Horng Chau (2020). CNN 101: Interactive Visual Learning for Convolutional Neural Networks (Extended Abstract). CHI 2020, Honolulu, Hawaii

SELECTED PROJECTS

- **Insight:** A virtual reality tutoring/classroom service with interactive labs, written using Unity/C#. Winner in Microsoft's Imagine Cup.

AWARDS

- **Square Intern Hackweek:** Submitted Square Trends, 1st place, 2019
- **Microsoft Imagine Cup:** Submitted Insight (from personal projects). World Semi-finalist, International, 2017

PROGRAMMING SKILLS

Languages: Python, JavaScript/TypeScript, Java, C#, C, SQL, Ruby

Technologies: PyTorch, Node.js, Svelte, React, Redux, MySQL, MongoDB, Redis, Git

PERSONAL

I once had to sail a sunfish without my glasses. I can't see (much less do) anything without my glasses.