

Sky Johnson

Recent graduate | Freelance Software, Fullstack, and Data Engineer.
Computer Science, Creative Technology & Design, Math

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Education

University of Colorado Boulder

Cumulative GPA: 3.36, Dean's List

Aug 2016 - May 2020

Bachelor of Science in Computer Science

Major GPA: 3.514

Relevant Coursework: Capstone: Entrepreneurship, Machine Learning, Biological Networks, Numerical Computation, Database Systems and Design, Chaos Dynamics, Principles of Programming Languages, Algorithms, Systems

Bachelor of Science in Creative Technology & Design

Major GPA: 3.657

Relevant Coursework: Physical Computation, Game Development, Web Design, 3D Modeling, Typography, Photography

Minor in Applied Mathematics (Focus: Theoretical Statistics)

Relevant Coursework: Markov Chains & Monte Carlo Sims, Statistics, Appl. Probability, Linear Algebra, Diff Eqs.

Projects

Personal Website, A Fullstack Application

- A personal website with fullstack features, a frontend created using React JS and Typescript with Semantic UI and SASS
- A backend api, dockerized and hosted on a Digital Ocean VPS, using NodeJS, GraphQL, PostgreSQL, and Apollo
- An Admin portal to interact with the backend to edit data and add new projects rapidly with Authentication.

Technologies: React, Typescript, NodeJS, Docker, GraphQL, Apollo, PostgreSQL

Human Contact Networks with GANs, A Data Science Project

- Implemented a random graph model involving Generative Adversarial Networks trained on Human Contact Network Data for simulation with compartmental models to study infectious spread over a population using Python and NetworkX.
- Used Tensorflow to create GANs trained against school interaction data.

Technologies: Python, Tensorflow, Keras, NetworkX

Libnosis, Senior Entrepreneurial Capstone, A Fullstack PaaS

- Created a functional PaaS application that allowed data scientists to rapidly share, collaborate, and deploy ML models.
- Competed in the 2020 New Ventures Challenge hosted by CU for rising startups.
- Created a website in addition to a python library that could containerize and separately run models in production.

Technologies: React, Typescript, PostgreSQL, Google Cloud Platform, Kubernetes, Docker, Heroku, GitLab CD/CI

Unity Robotics Tool Kit, A Unity Toolkit

- A set of Unity toolkits and libraries that interfaced directly with a ROS server to enable control of a robot in a unity space while also providing an easy way to use virtual and mixed reality controllers in the same space.
- Implemented Ph.D. research papers around Human robot interactions, like showing robotic intent, as well as implementing many more UI improvements, Filtering, Networking, and Data Logging.

Technologies: C#, Unity, Robotic Operating System (ROS), Vicon Capture, GraphQL, Oculus SDK, Hololens, Bebop SDK

Employment

Research Assistant, IronLab, University of Colorado Boulder

Mar 2019 - May 2020

- Developed software packages using Unity and ROS to vastly decrease the time it takes for a researcher to start and create a Human-Computer/Robotic Interaction experiment using Unity.
- Adapted and streamlined previous projects to new hardware, such as the HoloLens, Oculus RiftS, and Quest.

IT Student Assistant, University of Colorado Boulder

May 2018 - Aug 2019

- Ensured a high level of uptime and rapid service on the university's distance learning and classroom capture services.
- Worked in a large team to maintain, upgrade, and document the IT needs of the University.

Skills

Familiar Languages

Typescript (Javascript), Java,, Python, C#, C/C++, R, Arduino, Processing, OpenSCAD

Technologies and Libraries

React JS, Unity, PostgreSQL, ROS, NodeJS, Express, AWS, Auth0, Heroku, Netlify, Git, SciKit, TensorFlow, OpenCV, D3.js, Jest

Software

Adobe Creative Cloud, SolidWorks, Anaconda, JupyterLabs, Kubernetes, Docker, Github, Gitlab (CD/CI)