Brandon **Barker**

Software Engineer // Computer Scientist

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Languages & Skills

Python	JavaScript	Java	TypeScript	SQL	C#	Haskell	C++
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Frameworks // NodeJS, WebGL, RESTful, Google Cloud, Amazon Web Services, ReactJS, NumPy, Django, Docker, SQL, Flask, PostgreSQL, MySQL, Express, SASS, Git, GraphQL, Android, React Native, Amazon Web Services, Hive, Spark, Presto

Work Experience

UBER
SOFTWARE ENGINEER INTERN
May 2020 – Aug 2020
San Francisco, CA

- Collaborated with the Marketplace Data & Intelligence team to build largescale data analysis tooling.
- Addressed several areas within the software stack to deploy enhancements quickly while adapting to company paradigms. Worked with distributed technologies such as Hive, Presto, and Spark.
- Architected and implemented a dynamic H3 Hexagon clustering product to ease experimentation, a system crucial for Uber's machine learning models.

CESIUM GS
SOFTWARE ENGINEER INTERN
May 2019 – Aug 2019
Philadelphia, PA

- Enhanced SaaS platform that empowers developers and data providers to build dynamic 3D geospatial applications.
- Built integrations for popular 3D content creation tools - WebODM, Blender, and 3D Max - for smooth upload to Cesium ion to generate 3D Tiles for use in CesiumJS and other 3D engines.
- Championed efforts at improving Cesium JS rendering and solely orchestrated most of the changes within version 1.61.

COMMA.AI
SOFTWARE ENGINEER INTERN
May 2018 – Aug 2018
San Francisco, CA

- Contributed to the development of the full-stack dashboard application for a self-driving car kit developed by George Hotz, focusing on data to solve severe problems.
- Developed a mapping engine managing and visualizing over 5,000,000 miles of data.
- Structured toolset to generate 3D Tiles and provide metadata when interacting with the mapping frontend.

DOKKIO
SOFTWARE ENGINEER INTERN
Jun 2017 – Jan 2018
San Francisco, CA

- Initiated a better way to search content, give the content a business context, organize it, and work on it with others to make content-focused teamwork more effective.
- Analyzed 2000GB of data and engineered a recommendation system for categorizing files and folders.
- Implemented a document preview engine capable of loading documents with thousands of pages.

Education

MAJOR COMPUTER SCIENCE, BUS. MANAGEMENT & MINOR MATHEMATICS
WEST CHESTER UNIVERSITY
Aug 2017 – May 2021
GPA 3.9

Honors & Awards

TOP 50 WORLDWIDE HACKER BY MAJOR LEAGUE HACKING
Jan 2020

Chosen from 100,000+ hackathon participants who exemplify diversity, technological innovation, and leadership.

1871 AWARD
Jan 2020

Recognized 71 undergraduates who are high achieving in academics, leadership, community-engagement, and career-readiness.

TOP 10 OUT OF 1500, BEST HARDWARE HACK & BEST HEALTH HACK AT PENNAPPS
Sep 2019

Engineered an assistive device for spatial navigation and obstacle avoidance through SLAM with haptic feedback.

Projects

ELDERLYF
Sep 2019

Jetson Nano – Segnet – Python – Intel Realsense

Self-navigating and obstacle avoidance walker for the blind elderly.

ENTIUM
Aug 2018

Pointclouds – Big Data – Python – JavaScript

Pointcloud optimizer and metadata compressor to generate 3D Tilesets for CesiumJS.