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JOSEPH SAYAD

josephsayad.com
josephsayad95@gmail.com

EXPERIENCE

Software Engineer   **Arthena**   **Summer 2019 – Present**

- Rearchitecting company's data pipelines with Pandas, Dask, and Dagster.
- Designed and built out systems for data correction and annotation.
- Designed and built out data visualizations with D3.js and React.js.

Software Engineer Intern   **InsiteVR**   **Spring 2019**

- Developed VR features with Unity (e.g., synchronized viewing of VR UIs for multiple users exploring a model).
- Updated and added new endpoints to REST API (e.g., requested and served BIM 360 model properties to clients).

Undergraduate Researcher   **Shendure Lab**   **Summer 2017**

- Developed big data analytic pipelines with Python and R.
- Accelerated data visualization workflow through parallel computing.
- Leveraged statistical analysis techniques to interpret results.

PROJECTS

- **OpusVR (2018)** WebVR Engine that provides gallery curators the necessary set of features to build their own virtual gallery. Spaces are composed with uploaded image and model assets via web and VR user interfaces. *A-Frame, Three.js, React.js.*
- **iPore (2017)** Mobile application used to work with nanopore sequencing data from Oxford Nanopore. It uses three open-source bioinformatics tools. *React Native, Node.js, Express.js, MongoDB, Docker.*
- **Loop inference and protein-protein interaction pipelines (2017)** Big data pipelines developed to identify patterns in transcription factor binding (ChIP-seq datasets) and 3D genome structure (ChIA-PET datasets). *Python, R.*

EDUCATION

CUNY Hunter College   **Computer Science**   **Fall 2013 – Spring 2018**

- BA in Computer Science, Minor in Mathematics. GPA 3.67
- Completed Courses: Software Analysis & Design III, Operating Systems, Database Management, Bayesian Statistics, Big Data Seminar, Computer Architecture I, Computer Theory I, Matrix Algebra

LANGUAGES AND TECHNOLOGIES

- JavaScript, TypeScript, Python, C++, C#, HTML5, CSS3, SQL
- React.js, Next.js, D3.js, Three.js, Node.js, Express.js, GraphQL, Pandas, NumPy, Dask, Dagster, PostgreSQL, Docker, Unity, MongoDB, Git, DigitalOcean, GCP, Jira

HONORS AND AWARDS

- **Exceptional Research Opportunities Program (2017)** Awarded a stipend for research at the Shendure Lab at the University of Washington by HHMI.
- **Undergraduate Research Fellowship (2016)** Awarded a stipend for research at the Bioinformatics Core Infrastructure Lab at the Center of Translational and Basic Research.
- **Thomas Hunter Honors Program (2016)** Accepted into Hunter College's honors program.