

## EDUCATION

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- **University of Southern California** Los Angeles, CA  
Master of Science in Computer Science July 2020 – Dec. 2021  
**Relevant Coursework:** Analysis of Algorithms, Deep Learning & its Applications, Advanced Data Stores  
Member of 2020 Viterbi Summer Honors Program (VSOP)
- **University of California, Berkeley** Berkeley, CA  
Bachelor of Arts in Computer Science Aug. 2015 – May 2019  
**Relevant Coursework:** Data Structures, Machine Learning, Advanced Algorithms, Databases, Networking, Operating Systems, Artificial Intelligence, Discrete Math and Probability Theory, Linear Algebra, Data Science, Computer Graphics

## EXPERIENCE

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- **Workday** Pleasanton, CA  
Software Engineer II Nov 2020 – Present  
I am software engineer contributing to Workday's back-end web server, building robust, scalable frameworks, solutions and infrastructure for our platform.
  - **Hubs & Edit Flows:** Building out a new framework to support multi-step transaction processing, and a new "hubs" view for all of Workday.
  - **Dovah:** Refactoring and re-implementing logging framework to be more efficient, easy-to-use, and accurately generate/aggregate data at the thread-level.
  - **Data Streams to VSS:** Using REST to integrate back-end server nodes with the virus scanning microservice to stream files and scan millions of uploads within Workday's platform.
  - **Internship (2018):** Built a full-stack, interactive scheduling micro-system for team scheduling and workforce management.
  - **Internship (2017):** Delivered a cross stack debugging microservice for developers to detect errors in the platform (scaled and dealt with millions of transactions per hour).
- **ServiceNow** Santa Clara, CA  
Cloud Platform Development Intern May 2016 – Aug. 2016
  - **Licensing & Usage Analytics:** Wrote scripts and generated key reports on user behavior and usage analytics using machine learning via Matlab, Kibana, and Tableau to analyze customer usage trends for over 500+ customers

## RESEARCH

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- **Information Sciences Institute, USC** Los Angeles, CA  
Graduate Research Assistant, advised by **Prof. Srivatsan Ravi.** July 2020 – Present
  - **PPER using FHE:** Working on privacy-preserving entity resolution using fully homomorphic encryption in distributed systems and multi-party computational systems.
  - **Secure Federated Learning using FHE:** Implementing and analyzing performance of aggregation functions using fully homomorphic encryption, as they relate to federated learning applications.

## PROJECTS

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- **Morse Code Decoder:** CNN-LSTM-CTC deep learning model to decipher morse code irrespective of the medium used to generate it. Experiments and results can be found [here](#)
- **Real-time N-Body Cosmological Simulation:** N-Body cosmological simulation build with WebGL and ThreeJS to depict gas clouds coalescing with each other to form galaxies. Live demo and blog can be found [here](#).
- **NBA Awards Predictor:** Collection and comparison of ML algorithms and their corresponding predictions for NBA awards utilizing data from 2000-2019.
- **Protein Structure Reconstruction:** Using FFT and backprojection, reconstructed a 3D visualization of a zika virus from a 2D image. Full write-up and experiments can be found [here](#).

## PROGRAMMING SKILLS

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- **Languages:** Java, C++, Python, JS, SQL, Scala      **Technologies:** Kafka, Spring, PyTorch, Hadoop, Spark