Rohit Jagga

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EDUCATION

University of Pennsylvania **Aug 2020 – May 2024**

B.S.E. in Computer Science, B.S. in Economics *Philadelphia, PA*

- **GPA:** 3.8/4.0, **SAT:** 1600/1600
- **Relevant Courses:** Data Structures & Algorithms, Operating Systems, Advanced Algorithms, Machine Learning, Computer Systems, Big Data Analytics (TA), Probability Theory, Statistical Inference, Advanced Linear Algebra

EXPERIENCE

Amazon **May 2022 – Present**

Software Engineer Intern *Seattle, WA*

- Designing a Gamma API Explorer platform based on the microservice architecture, to help streamline developer testing of requests to Amazon's Checkout API endpoints (supports ∼20,000 requests/min) in pre-prod (gamma) environment.
- Working with Java (JSP, Swing), DynamoDB, AWS Lambda, and Apollo & CI/CD pipelines for automated deployment.

University of Pennsylvania **Aug 2021 – Dec 2021**

Computer Science Teaching Assistant (graduate-level CS course) *Philadelphia, PA*

- Held weekly recitations & office hours to assist 20+ students with course concepts, and mentored 5 final group projects.
- Developed and graded HW assignments on graduate-level data science concepts from Spark EMR clusters (distributed processing), SQL, data preprocessing, regression, clustering/classification, regularization/hyperparameter tuning, and neural networks (feed-forward, CNNs, autoencoders).

OffWeGo **June 2021 – Aug 2021**

Software Engineer Intern *Remote*

- Developed a groupchat SMS feature using Twilio API to enable trip-based group messaging for OffWeGo mobile users.
- Modeled customer retention & risk associated with OffWeGo student travelers based on response rates to check-in requests, peer survey scores, etc. from an internal student management database using Python, JavaScript, and SQL.
- Made frontend and backend modifications to the company website using React, Django, PostgreSQL, and AWS.

Children's Hospital of Philadelphia **May 2021 – Aug 2021**

Machine Learning Research Intern *Philadelphia, PA*

- Designed an end-to-end PyTorch pipeline for Semi-supervised Contrastive Learning on frontal chest X-ray images.
- Applied data augmentations on image dataset, conducted multi-GPU training (via CHOP cluster) on the convolutional neural network (CNN) model, performed fine-tuning, etc. which resulted in >91% test accuracy in diagnosing ARDS.

PROJECTS & ACTIVITIES

Software Engineer, UPenn Student Federal Credit Union | *React, Node.js, AWS S3, Git* **Feb 2021 – Present**

- Redesign website features (with JavaScript, React) for the customer-facing credit-builder application, enhance the online banking experience, & perform customer analytics for a $7 million student-run credit union that serves 400+ customers.

CommunityMap | *MongoDB, Express, React, Node.js, Apple Maps, React Native* **Feb 2022 – May 2022**

- Worked with a team of 6 students to design a map-based events platform to encourage engagement in the community.
- Created a map view display (using Apple Maps) with functionality for users to login, see/join ongoing events (stored in MongoDB database), and engage in text-based chatting among event members (via WebSocket API for Node.js).

NCVPS Tutoring Analytics | *Python, Flask, HTML, CSS, JavaScript, jQuery* **June 2017 – May 2020**

- Developed a full-stack web application that provides tutoring hours analytics for 100+ NCVPS students and teachers.
- Used HTML/CSS, JavaScript, and Flask (Python) to design the web app, and utilized jQuery & Google Apps Script to fetch data and update data visualizations in real-time from the organization's tutoring hours database.

Credit Suisse Financial Modeling project | *PyTorch, scikit-learn, Python, Git* **Feb 2020 – Mar 2020**

- Led a group of students in a financial modeling project that applied machine learning methods for interpolating volatility surfaces on options data, presented our results to financial professionals at the Credit Suisse Raleigh, NC office.
- Tested the viability of Transfer Learning, Random Forest regression, Gradient-Boosted regression, etc.

TECHNICAL SKILLS

Languages:	Python, C/C++, Java, JavaScript, OCaml, SQL, R
Frameworks/Libraries:	React, Node.js, Flask, React Native, Express.js, HTML/CSS, JUnit
Technologies:	AWS, MongoDB, Spark, Git, Postman, Figma, LaTeX
Data Science/ML:	PyTorch, TensorFlow, PyTorch Lightning, Spark MLlib, Jupyter Notebook