Nikhil Vytla

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EDUCATION

## Harvard T.H. Chan School of Public Health

Aug 2023 - Mar 2025 (Expected)

S.M. Health Data Science

Boston, MA

University of North Carolina at Chapel Hill

Aug 2018 - Dec 2021

B.S. Computer Science & B.S. Statistics and Analytics; GPA: 3.7

Chapel Hill, NC

o Honors: Chancellor's Carolina Scholarship (full ride, academic merit), Honors Carolina

Work Experience

TruEra

Jan 2022 - Present

Redwood City, CA

ML Infrastructure Engineer - Core Platform

- Build data/observability infra for secure, scalable ML, NN, deep learning, and LLM **explainability**. (Spark, Kafka, Druid, Auth0, AWS, Temporal, Terraform, Helm, SHAP, QII)
- Research accessible data visualization techniques for complex, reactive model interpretability (e.g. NLG-driven descriptive chart captioning for model fairness metrics). (Highcharts, React, Chart-to-Text)
- Architect APIs to enable dynamic **data quality time-series monitoring** and customizable rule/metric computation. (gRPC/Protobuf, Java, Python, Azure, Kubernetes)

## Amazon Web Services (AWS)

May 2021 - Aug 2021

Software Development Engineer Intern - AMI Platforms

Seattle, WA

- Designed **OAuth-based protocol** for authenticating a new cloud service for RHEL on AWS consumers, democratizing secure, open-source developer education. (*Python, Java, TypeScript, AWS Lambda/KMS*)
- Authored **8-page accessibility reports/playbooks** with actionable insights to improve EC2 web console experiences for developers with disabilities.
- Led new initiative for cloud accessibility across EC2 and AWS, presented updates on initial research at org-wide meetings to senior leadership, and published documentation on the design goals and approaches of #a11y.

Capital One

May 2020 - Aug 2020

 $Software\ Engineering\ Intern\ -\ Enterprise\ Products\ \ \ \ Platforms$ 

McLean, VA

- Designed, created, and launched Turing REST API for secure real-time consumer (NPI/PCI) data tokenization currently supporting **peak 2.5M TPS w/ 10B operations/day**. (AWS S3/EMR, Docker, Lua, SQL)
- Trained and deployed scalable, multi-layer anomaly detection neural networks, increasing accuracy of error reporting for token-based development incidents by **2.1x**. (Amazon SageMaker, Python)

LEADERSHIP AND INVOLVEMENT

CS+Social Good

Aug 2018 - Dec 2021

Co-President

Chapel Hill, NC

Led a 40-person team and built web/mobile apps for non-profits/student organizations, empowering local

communities in areas like education, food security, sexual assault, mental health, and accessible tech. [GitHub]

o "Development of a Mobile App to Support Self-management of Anxiety and Depression in African American
Women: Usability Study". McCall T, Ali M, Yu F, Fontelo P, Khairat S, Computer Science + Social Good

at UNC Chapel Hill (app development). JMIR Form Res 2021. [Paper]

 $\underline{\text{HackNC}}$ 

Aug 2018 - Dec 2021

Chapel Hill, NC

 $Director\ of\ Sponsorship$ 

• Directed one of the largest hackathons for social good in the US. Spearheaded initiatives for D&I, led partnerships with minority-focused accelerators/funds, sponsors, and non-profits, and oversaw \$50K+/year.

## **PROJECTS**

- <u>FloodGate</u>: Leveraged live, crowd-sourced text/location data for early flood warning and detection. **Best Use of Twilio Award, HackDuke 2019**. (Arduino/C, Flask, Google Maps/GCP, Twilio API, Python)
- <u>Onclass</u>: Founded and led 501(c)(3) ed-tech non-profit since 2017. Created interactive educational tech for K-12 students across 20+ subjects, reaching **22K**+ **students in the US/India**. (*C#*, *Google Daydream*, *JS*, *Unity3D*) SKILLS
- Languages/Frameworks: Python, Java, C/C++, SQL, Postgres, MongoDB, Keras, TensorFlow, PyTorch, R, JavaScript, TypeScript, HTML/CSS, React, Node.is, Flask, Swift, SMART on FHIR
- Technologies: AWS, Azure, Linux, Kubernetes, Helm, Temporal, Terraform, Git, Docker, Postman, Figma