

NIKHIL VYTILA

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(669) 204-6198

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

EXPERIENCE

- **TruEra** Jan 2022 - Present
ML Infrastructure Engineer - Core Platform Redwood City, CA
 - 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 (github.com/cssgunc)** Aug 2018 - Dec 2021
Co-President Chapel Hill, NC
 - Led a 40-person team and built web/mobile apps for local non-profits and student organizations that empower communities in areas like education, food security, sexual assault, mental health, and accessible tech.
 - "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]
- **HackNC** Aug 2018 - Dec 2021
Director of Sponsorship Chapel Hill, NC
 - Directed one of the largest hackathons for social good in the US. Spearheaded initiatives for D&I, lead partnerships with minority-focused accelerators/funds, sponsors, and non-profits, and oversee \$50K+/year.

PROJECTS

- **FloodGate:** 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*)
- **Onclass:** 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++, Lua, Shell, SQL, Postgres, MongoDB, Keras, TensorFlow, PyTorch, R, JavaScript, TypeScript, HTML/CSS, React, Node.js, Flask, Angular, React Native, Swift
- **Technologies:** AWS, Azure, Linux, Kubernetes, Helm, Temporal, Terraform, Git, Docker, Postman, Figma