

NIKHIL VYTILA

nikhilvytla.com // github.com/nikhil-vytla

cnikhil.vytla@gmail.com

(669) 204-6198

EDUCATION

- **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
 - **Relevant Coursework:** AI, Files and Databases, Algorithms and Analysis, Computer Organization, Data Structures, Computer Security, Bioalgorithms, Data Sci. for Earth, Linear Algebra, Probability

EXPERIENCE

- **Amazon Web Services (AWS)** May 2021 - Aug 2021
Software Development Engineer Intern – AMI Platforms Seattle, WA
- **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*)
 - Engineered web app for internal token-based project development, improving auditing capabilities against insider security threats by **70% for 2500+ teams** company-wide. (*Angular, TypeScript*)
 - 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*)
- **University of North Carolina School of Medicine** July 2019 - May 2020
Machine Learning Research Assistant Chapel Hill, NC
 - **Gait Biomechanics Lab:** Spearheaded biomechanical vibration-based gait retraining device/app for chronic ankle instability under Dr. Kimmerly Migel (funded by \$10K grant from UNC OUR/URCT). (*Poster*)
 - **Advanced Computational Medicine Lab:** Researched novel tissue clearing and 3-D microscopy methods for measuring neuron activity in patients with Alzheimer's disease. Deployed deep learning models using **Mask R-CNN** and longitudinal network analysis to visualize and identify cell segmentation in mice brains, achieving **93%+ accuracy** under Dr. Guorong Wu. (*Keras, Python, TensorFlow*)
- **Fidelity Investments** May 2019 - Aug 2019
Software Engineering Intern – Personal Investing Durham, NC
 - Developed, tested, and deployed REST API for data metrics analyzing **30M+** customers' daily transaction operations. (*Java, SQL, Postman, Jenkins*)
 - Built analytics dashboard using the **Splunk API** to measure relative efficiency of high-throughput core transaction APIs vs. legacy APIs, optimizing pipeline oversight by **80%**. (*Elastic Stack, Splunk, Tableau*)

LEADERSHIP

- **CS+Social Good (github.com/cssgunc)** Aug 2018 - Present
Product Manager Chapel Hill, NC
 - Lead a 15-person team and build 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.
- **HackNC (hacknc.com)** Aug 2018 - Present
Director of Sponsorship Chapel Hill, NC
 - Direct one of the largest hackathons for social good in the US. Currently spearhead 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. (*Arduino/C, Flask, Google Maps/GCP, Twilio API, Python*) – Best Use of Twilio Award, HackDuke 2019
- **Onclass:** Founded and lead 501(c)(3) ed-tech non-profit since 2017. Designed and created custom, interactive educational tech for K-12 students across 20+ subjects (ex. VR lessons, collaborative online whiteboards, & reading proficiency apps), reaching **22K+ students in the US/India**. (*C#, Google Daydream, JS, Unity3D*)

SKILLS

- **Languages/Frameworks:** Python, JavaScript, C/Lua, Java, SQL, R, HTML/CSS, React, Node.js, TensorFlow, Flask, TypeScript, Angular, Postgres, Arduino/C++, Flutter, React Native, Swift, Android Studio
- **Technologies:** Linux, AWS (S3/EC2), GCP, Elastic Stack, Git, Docker, Postman, Jenkins, Figma/Adobe XD