

NIKHIL VYTILA

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(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
 - 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*)
 - 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*)
- **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
Co-President Chapel Hill, NC
 - Lead a 40-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 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, 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 (EC2, S3, Lambda, KMS, CloudWatch), GCP, Git, Docker, Postman, Figma