

Phong Le

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EDUCATION

University of Virginia, School of Engineering and Applied Science

August 2022 – May 2026

Bachelor of Science in Computer Science, Minor in Applied Mathematics

- **Cumulative GPA:** 3.82/4.00 (Dean's List Honors)
- **Awards/Involvements:** Kimmy-Duong Foundation Scholar (\$8,000), NPHMU Arthur S. Vallone Scholar (\$4,000), Carl H. Myerley Scholar (\$2,000), Madison House Volunteer, Student Game Developers, Club Table Tennis, VSA

EXPERIENCE

UVA Engineering

Aug 2025 – Present

Undergraduate Researcher

Charlottesville, VA

- Developed **floodwatch.io**, a flood risk prediction platform utilizing **Next.js**, **TypeScript**, and **MySQL**
- Implemented interactive flood maps in **React.js**, servicing flood-risk predictions to **58+** Vietnamese provinces
- Built a device registration system with **Next.js** and **Prisma**, supporting **30+** LiDAR rain gauges across Vietnam
- Engineered **tRPC APIs** to streamline **20,000+** daily weather readings, driving continuous flood risk predictions

theCourseForum

Aug 2025 – Present

Software Engineer

Charlottesville, VA

- Maintained **theCourseForum**, a **Python/Django** course review platform supporting **18,000+** UVA students
- Developed Python **REST APIs** supporting course and review data integration for **8000+** sections
- Built a reviews summarization feature with **AWS**, empowering informed student course selection decisions

Appian

Jun 2025 – Aug 2025

Software Engineer Intern

McLean, VA

- Deployed **DataDog** monitors on prod **SQS** queues via **Terraform**, cutting incident response times by **80%+**
- Replaced legacy admin access system with secure, proxy-based logins using **Teleport**, **Terraform**, and **Go**, improving compliance and **reducing time-to-access** for Support Engineers diagnosing customer sites
- Provisioned and tuned **Kubernetes** network policies via **Helm charts**, strengthening cluster security and enabling targeted cross-Pod communication for **300+** customer apps and internal services
- Won intern hackathon with an AI-powered service leveraging **Gitlab CI/CD** and **AWS Bedrock** to automatically update documentation from source code changes, accelerating delivery of feature impacted technical docs by **3×**

Ellucian

May 2024 – April 2025

Software Engineer Intern

Reston, VA

- Developed a rich-text-editor integrated AI writing assistant serving **2900+** higher education institutions globally
- Contributed **6,000+** lines of code to a platform service leveraging **Python**, **AWS Lambda**, **RESTful APIs**, **SQS**, **SNS** and **Bedrock** to enable scalable AI integration into existing company SaaS solutions
- Reduced enterprise API latency by **85%+** through cloud-based caching using **AWS Lambda** and **DynamoDB**
- Engineered comprehensive **TypeScript** unit-tests for **React** and **AWS** modules, sustaining **70%+** code coverage

PROJECTS

SimpliSplit | *Python, TypeScript, React Native, Firebase*

- A mobile app to streamline bill splitting by allowing users to scan a receipt, match friends to receipt items, and send Venmo requests with one click, reducing manual effort by at least **75%**
- Implemented receipt scanning with **Tesseract OCR** and transaction processing with **Venmo API**

GradeBuddy | *TypeScript, Next.js, Prisma, MongoDB, tRPC*

- An AI powered grading assistant app to automate free-response grading and increase faculty efficiency
- Enforced type-safe client-server communication with **tRPC** and secure user authentication with **Auth0**
- Automated free-response grading with **OpenAI API**, integrating text parsing and OCR for input scanning

SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, Go, Terraform, SQL, C++, R, HTML, CSS

Frameworks/Libraries: React.js, Next.js, Node.js, Express.js, Django, TailwindCSS, Jest, Selenium, Prisma, tRPC

DevOps: Kubernetes, Docker, AWS, Jenkins, Jira, Confluence, Git, CI/CD, Bash Scripting, PowerShell, Agile Scrum

Databases: DynamoDB, MongoDB, DocumentDB, Firebase, PostgreSQL, MySQL, SQLite