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)

EXPERIENCE

Undergraduate Researcher — Aug 2025 – Present
UVA Engineering — *Charlottesville, VA*
- Drove development of **floodwatch.io**, a flood risk monitoring platform servicing **58+** Vietnamese provinces in partnership with The Ho-Chi-Minh City Department of Science and Technology
- 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

Software Engineer — Aug 2025 – Present
theCourseForum — *Charlottesville, VA*
- Maintained a **Python/Django** course and instructor review platform supporting **18,000+** UVA students
- Built a reviews summarization feature with **AWS Bedrock**, saving students time in course/instructor selection
- Developed a course flow chart with UVA **SIS API**, streamlining academic planning and progress tracking

Software Engineer Intern — Jun 2025 – Aug 2025
Appian — *McLean, VA*
- Deployed **DataDog** monitors on production **SQS** queues, reducing incident response times by atleast **90%**
- Replaced legacy admin access system with secure, just-in-time logins using **Teleport**, **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×**

Software Engineer Intern — May 2024 – April 2025
Ellucian — *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 **AWS Bedrock, SQS, SNS,** and **Azure AI** 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, Venmo API*
- A mobile app to streamline bill splitting by allowing users to scan a receipt, match friends to receipt items, and send respective Venmo requests with one click, reducing manual effort by atleast **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