

Edward Wei

• <https://github.com/ewei2406> • Charlottesville, VA

EDUCATION

University of Virginia

BS Computer Science, Minor in Applied Mathematics, Minor in Business

Charlottesville, VA

Aug 2021 – May 2025

- Cumulative GPA: 3.9/4.0
- Relevant Courses: Data Structures & Algorithms II, Software Development II, Computer Systems & Organization II, Stochastic Processes, Survey of Algebra, Linear Algebra, Statistics, Probability

EXPERIENCE

Amazon Web Services

Software Development Engineer Intern

Seattle, WA

May 2023 – Present

- Migrated application DynamoDB tables, Neptune clusters, GraphQL endpoints, and other backend components from Amplify to CI/CD CodePipeline created with AWS TypeScript CDK and copied data using Lambda
- Implemented Lambda Custom Resource in private subnet to enable automatic population of Neptune from S3
- Developed CDK stacks for deploying SageMaker notebooks via CodeCommit with methods to compress and transfer model weights to S3; submitted for future publication in AWS examples repository

University of Virginia

Undergraduate Research Assistant

Charlottesville, VA

Sept 2021 – May 2023

- Created a gradient-based defense for Graph Neural Network-targeted inference attack using Python/PyTorch
- Assisted doctorate students with diffusion model research by conducting experiments in PyTorch and analyses in R
- Principal author of paper accepted to ACM SIGKDD-UC 2022 (Undergraduate Consortium) Conference on Knowledge Discovery and Data Mining (https://kdd.org/kdd2022/papers/16_Edward%20Wei.pdf)

Amazon Web Services

Software Development Engineer Intern

Herndon, VA

May 2022 – Aug 2022

- Proposed and refactored form storage backend from S3 to DynamoDB and implemented server-side filtering using Lambda and AWS CDK, reducing monthly operating costs by 40% and decreasing client load time by 75%
- Unified existing CDK infrastructure from Python/TypeScript to solely TypeScript, improving developer-friendliness
- Developed self-proxy for S3-hosted React frontend, eliminating hardcoded URLs and enabling 25% faster builds
- Implemented PDF, CSV, and PPT form report generation component in React connected to Lambda API endpoint

Food For Lane County (FFLC)

Software Engineering Lead

Eugene, OR

Feb 2022 – Jun 2022

- Led team to develop analytics platform for FFLC food donation network, enabling 9 partner organizations to consolidate tracking efforts for thousands of lbs. of food and improve coordination of repeated deliveries
- Conducted 10 biweekly stakeholder interviews and demos to iterate design requirements understand client needs
- Developed React-Typescript frontend, Node.js API, MongoDB database, and deployed on Salesforce Heroku

PROJECTS

Tindify <https://github.com/ewei2406/Tindify>

Spring 2022

- Deployed full-stack app with React & Node.js where users “swipe” on music to get personalized recommendations
- Devised REST API utilizing Spotify API and OAuth2.0, enabling exporting of playlists directly to Spotify

ChatGame 3D <https://github.com/ewei2406/Chat-Game-3d>

Fall 2021

- Created real-time chatting game utilizing WebSockets & SocketIO with procedurally generated landscape
- Constructed 3D rendering engine and matrix algebra library in Typescript to practice Linear Algebra

SKILLS

- Languages: TypeScript, Python, Java, C, C++, R, Bash, HTML, CSS
- Frameworks: AWS Cloud Development Kit (CDK), JUnit, Jest, React, Node, PyTorch
- Technologies: AWS (Lambda, DynamoDB, S3, CloudFormation), Git, Linux, VSCode, LaTeX, Photoshop

AWARDS

- **UVA Dean’s Undergraduate Research Fellowship:** Awarded to recognize and support research at UVA
- **1st Place, UVA Darden Entrepreneurship Cup-Concept Stage:** Pitched Sella, an AI-based re-commerce platform, and won startup competition against 30 teams of MBA and undergraduate students
- **Certifications:** AWS Certified Solutions Architect (Associate), AWS Certified Developer (Associate)