### Job link and Description

## https://explore.jobs.netflix.net/careers/job/79029873 9171?utm source=Simplify&ref=Simplify

Netflix is one of the world's leading entertainment services with 278 million paid memberships in over 190 countries enjoying TV series, films and games across a wide variety of genres and languages. Members can play, pause and resume watching as much as they want, anytime, anywhere, and can change their plans at any time.

The Role

#### Who are we?

Netflix is the world's leading streaming entertainment service with over 275 million paid memberships in over 190 countries enjoying TV series, documentaries, feature films, and mobile games across a wide variety of genres and languages. Members can watch as much as they want, anytime, anywhere, on any internet-connected screen.

It's no secret that we want to entertain the world. In order to do that we first must hire and develop the best people, starting with university students.

If you have a passion for solving challenging problems; learning how to build scalable, robust systems; love working with the latest technologies in a fast-paced, flexible environment; and are excited at the prospect of having a significant impact on software that over 275 million people use and love, then we want to talk to you.

#### Who are you?

- Current student pursuing a BS/BA or MS/MA in a technical field such as Computer Science, Engineering, Math, or Statistics — with an expected graduation date around December 2025 or Spring/Summer 2026
  - Candidates with significant relevant work experience may not be considered.
     While prior internships are okay, we may not consider candidates with multiple years of relevant work experience.
- Excited about exploring new solutions and are willing to break things to learn
- Make confident decisions that are well thought out and a willingness to share your ideas
- Can work independently and are unafraid to seek out suggestions from other team members
- Excited to work effectively in a collaborative environment
- Clear communicator you are concise and articulate in speech and writing
- Passionate about Netflix's mission to Entertain the World and believe you can thrive in our culture

- Coursework or relative experience with data structures, algorithms, and debugging (bonus if you've completed at least one of these courses: Distributed Systems, Web Development, Mobile Development, Network or Application Security, Machine Learning or AI)
- Fluent in any one of the following programming languages: C, Java, Kotlin, C++, C#, JavaScript, TypeScript, Python, Go, or Rust
- If you're fluent in another modern programming language that you don't see here, please still consider applying. If your programming skills and CS fundamentals are strong, we're happy to support you learning a language more widely used within Netflix

#### What could you learn?

- Building applications that solve complex business problems elegantly
- Scalable system design and architecture process
- Writing high-quality, performant, and industry-standard code
- Working closely with business stakeholders in a fast-paced environment
- Building UIs that are intuitive, engaging, and surface business insights for our partners

Don't meet every single requirement? That's ok! If you're excited about this role, but your experience doesn't align perfectly with every qualification in the job description, we encourage you to apply anyway. You may be the right candidate for this or other roles.

#### Internships at Netflix

At Netflix, we offer a personalized experience for interns, and our aim is to offer an experience that mimics what it is like to actually work here. We match qualified interns with projects and groups based on interests and skill sets, and fully embed interns within those groups for the summer. Netflix is a unique place to work and we live by our values, so it's worth learning more about our culture.

Internships are paid and are a minimum of 12 weeks, with a choice of a few fixed start dates in May or June 2025 to accommodate varying school calendars. Conditions permitting, our summer internships will be located in our Los Gatos, CA office, or in our Los Angeles, CA office, depending on the team.

At Netflix, we carefully consider a wide range of compensation factors to determine the Intern top of market. We rely on market indicators to determine compensation and consider your specific job, skills, and experience to get it right. These considerations can cause your compensation to vary and will also be dependent on your location.

The overall market range for Netflix Internships is typically \$40/hour - \$110/hour.

This market range is based on total compensation (vs. only base salary), which is in line with our compensation philosophy. Netflix is a unique culture and environment. Learn more here.

We are an equal opportunity employer and celebrate diversity, recognizing that diversity of thought and background builds stronger teams. We approach diversity and inclusion seriously and thoughtfully. We do not discriminate on the basis of race, religion, color, ancestry, national

origin, caste, sex, sexual orientation, gender, gender identity or expression, age, disability, medical condition, pregnancy, genetic makeup, marital status, or military service.

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Job is open for no less than 7 days and will be removed when the position is filled.

### SEE COVER LETTER ON NEXT PAGE

### Cover Letter

James Zhang 6 Forsythia Circle Sharon, Massachusetts, 02067 617-691-9580 jzhang72@terpmail.umd.edu

Hiring Professionals Netflix 100 Winchester Circle Los Gatos, CA 95032

Dear Hiring Professionals,

I am writing to express my excitement for the Software Engineering Intern role at Netflix, which I discovered through the Netflix careers website. As a junior at the University of Maryland, pursuing a double major in Computer Science and Mathematics with a minor in Computational Finance, I am eager to bring my technical skills and problem-solving mindset to your team. Netflix's mission to "Entertain the World" resonates with my passion for creating scalable, robust systems that deliver value to millions of users worldwide.

During my internship at Capital One, I worked closely with cross-functional teams to enhance the security and efficiency of large-scale banking systems, impacting millions of users. This hands-on experience with scalable systems, paired with my strong foundation in data structures, algorithms, and machine learning coursework, has prepared me to contribute meaningfully to Netflix's high-performing engineering teams. My proficiency in languages such as Java, Python, and C++, combined with my ability to learn quickly and adapt to new challenges, will allow me to make an immediate impact.

I am particularly drawn to Netflix's culture of innovation and collaboration, where experimentation and pushing boundaries are encouraged. Having thrived in environments where I had to make independent decisions while seeking feedback from peers, I believe I am well-suited for the fast-paced and dynamic nature of this internship.

Thank you for considering my application. I look forward to the opportunity to discuss how my technical background and passion align with Netflix's goals. I can be reached at 617-691-9580 or jzhang72@terpmail.umd.edu. I will follow up in a week to confirm that my application materials have been received.

Sincerely, James Zhang

# James Yihan Zhang

617-691-9580 | jzhang72@terpmail.umd.edu | linkedin.com/in/jamesyzhang | github.com/thejameszhang

#### CAREER CORE VALUES

**Collaboration** - I prioritize fostering an environment where teamwork and individual responsibility are seamlessly integrated to achieve collective success. I consistently work to empower others and drive team-oriented results.

**Integrity** - I adhere to the highest standards of honesty, transparency, and accountability in all professional dealings, ensuring ethical decision-making at every stage.

**Innovation** - I consistently seek out innovative solutions, striving to challenge conventional thinking and adopt forward-looking approaches to complex problems.

**Growth** - I am committed to continuous professional and personal development, constantly enhancing my skills while supporting the growth and success of my colleagues.

**Service** - I maintain a results-oriented approach, dedicated to delivering exceptional outcomes for both clients and collaborators, ensuring long-term value and satisfaction.

#### TECHNICAL SKILLS

Languages: Python, C, C++, CUDA, Rust, Java, OCaml, Matlab, HTML/CSS, Javascript, MIPS Assembly, LaTeX Tools & Frameworks: Git, Docker, AWS, Jenkins, FastAPI, Flask, Django, React.js, Pydantic, SQLAlchemy, Conda, VS Code, Eclipse, Vim, Figma

Systems: Linux/Unix, Windows, MacOS

Data & Analytics: Jax, Sklearn, Statsmodels, Pandas, NumPy, TensorFlow

#### Project-Based Achievements

#### State-Augmented RL Framework - Feb 2024 - May 2024

- Teamed up with IBM researchers to craft a next-gen state-augmented RL framework using sentiment analysis from financial reports to optimize portfolio management.
- Harnessed PPO & DDPG algorithms on AWS clusters via Gym & StableBaseline3, slashing training time by 40% while boosting performance.
- Developed an efficient, scalable Flask/React.js application for users to easily interact with the RL agent and track financial insights.

#### Capital One Remediation Dashboard - Jun 2024 - Aug 2024

- Led development of a scalable, real-time dashboard with a refined UI for data lake remediation requests with FastAPI and AWS Fargate—cutting dev workload by 20%.
- Optimized API built with Pydantic & SQLAlchemy, achieving a 15% reduction in database query times.
- Built a SlackBot using websockets to facilitate ultra-fast, team-wide communication, leveling up collaboration across the board.

#### Pairs Trading Alpha - Dec 2022 - Jun 2023

- Created a statistical arbitrage model utilizing PCA, clustering, and Hurst Exponent tests, with an average of 12% annualized returns in backtests.
- Improved pair identification speeds by 200x, thanks to optimized algorithms and smarter data structures.

#### Custom Jax GPU Ops for Infinite-Width NNs - Oct 2023 - Present

- Wrote C++/Cuda ops optimized for XLA compiler to support infinite-width neural networks, squeezing out a 25% speedup by integrating Jax's jit and vmap.
- Applied the framework to neural network kernel approximations in financial asset pricing models.

#### Quantitative Finance API Suite - Smith Investment Fund - Sep 2022 - Jul 2024

- Led the development of a quant finance API suite, migrating code from Python to Golang, cutting backtest times by 30%.
- Organized recruitment, ran workshops, and delivered lectures on advanced financial modeling and algo trading.