Sambhav Gupta

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EDUCATION

Stanford University   **Palo Alto, CA**

M.S. Computer Science Class of 2026 | GPA: 3.94   2022-2026

- Algorithms, C, C++, Systems, OS, ML/AI, NLP, CV, Cryptography, Security, Languages, Compilers

Stanford University   **Palo Alto, CA**

B.S. Mathematics Class of 2026 | GPA: 3.94   2022-2026

- Real, Complex Analysis, Group, Galois, Game Theory, Linear Algebra, Prob, Stats, ODEs, Stochastic Proc

EXPERIENCE

Jane Street   **New York, NY**

Quantitative Trading Intern   *May 2025 - August 2025*

- Analyzed relationships between implied volatility of options contracts
- Analyzed impacts of commodities exchange microstructure on trading dynamics
- *Stack: Python, Pandas, Pytorch*

Test-Time Training Lab   **Palo Alto, CA**

Machine Learning Researcher   *December 2024 - March 2025*

- Developed test-time finetuning, trained 7B and 32B transformers on ARC and Lean proofs
- Optimized Lean verifier server component for a 2-5x speedup via smarter multiprocessing
- *Stack: Python, Pytorch, Transformers, Ray*

Samsung Semiconductor   **San Jose, CA**

Storage Software Engineer Intern (PhD-level)   *June 2024 - September 2024*

- Developed custom OS kernels for tiered memory with high performance CXL-based SSDs (20x improvement)
- Developed suite of automated performance tests, improving productivity and test granularity by over 400%
- *Stack: C, Python, Linux, Hardware-level integration*

Amazon   **Seattle, WA**

Software Developer Intern   *June 2023 - September 2023*

- Deployed full stack internal application to 10,000+ customers
- Improved performance over old solution by over 200% and reduced costs by 50%
- *Stack: React, Java, Dagger, Typescript, AWS Cloudfront, API Gateway, Lambda, S3, EC2, Fargate*

PROJECTS

CourseCorrect - A Stanford University Course Planner and Discovery Tool

- Course planning tool used by 2000+ Stanford students. Only tool with complete degree verification
- sambhavg.github.io/coursecorrect
- *Stack: Javascript, Svelte, Python*

Dine - A Stanford Dining Hall Menu Aggregator

- Combines all Stanford menus; used by 2000+ students. 90-98% faster than existing solution
- sambhavg.github.io/dine (inactive during summer)
- *Stack: Javascript, Svelte, Python*

PUBLICATIONS

Conditional fractional matching preclusion for burnt pancake graphs and pancake-like graphs

- Published IJCM:CST (2021), presented at COCOON (Taiwan, 2020), 51st, 52nd SICCGTC (Florida, 2019, 2020)
- https://www.tandfonline.com/doi/full/10.1080/23799927.2022.2110159

SKILLS

- C, C++, C#, Java, Rust, Haskell, x86 Assembly, Python (Django, NumPy, Pandas, Tensorflow, Pytorch, Jupyter, Matplotlib), Javascript (React, Node, Express, Typescript, Svelte, Tailwind), SQL, MongoDB, Linux, AWS