SAMBHAV GUPTA

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EDUCATION

Stanford University **Palo Alto, CA**

GPA: 3.96 | B.S. Mathematics, M.S. Computer Science Class of 2026 2022-2026

- Coursework: Algorithms, C++, C, Systems, OS, ML/AI, NLP, CV, Security, Real & Complex Analysis, Group & Galois Theory, Linear Algebra, Combinatorics, Probability and Statistics, ODEs, Stochastic Processes, Cryptography, Security
- Activities: ICPC, Association for Computing Machinery (ACM), Stanford University Mathematical Organization (SUMO)

EXPERIENCE

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 SSD devices (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*

Bobyard **San Francisco, CA**

Principal Engineer *February 2023 - June 2023*

- First engineer at Proptech/Contech startup funded by Pear VC, raised $3.5 million seed round from Primary
- Developed AI component of product, fine-tuned OpenAI models on novel and synthetic datasets
- *Stack: React, Node.js, Django, PostgreSQL, AWS S3, OpenAI API*

Amherst **New York, NY**

Research and Analytics Intern *June 2022 - September 2022*

- Developed advanced statistical and AI-based models for real estate price prediction
- Models improved accuracy in predicting growth regions by 10+ percentage points
- *Stack: Python, NumPy, Pandas, Scikit-learn, Tensorflow, Pytorch, Jupyter, Matplotlib*

Lawrence Technological University **Southfield, MI**

Project Manager and Lead Developer *January 2022 - June 2022*

- Designed and developed a Unity 3D game for learning multivariable calculus
- Modernized teaching strategies with technology and improved student engagement and performance by over 100%
- sambhavg.github.io/QuadCorp-WebGL
- *Stack: Unity, C#, Blender*

PROJECTS

CourseCorrect - A Stanford University Course Planner and Discovery Tool

- Course planning tool used by 2000+ students (33% of Stanford undergraduates). 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
- *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 and 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