SAMBHAV GUPTA

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EDUCATION

Stanford University **Palo Alto, CA**

GPA: 3.99 | B.S. in Mathematics Class of 2025 | M.S. in Computer Science Class of 2026 2022-2025

- Coursework: Algorithms, C++, C/Assembly, Advanced proof-based mathematics, Real Analysis, (projected) Machine Learning, NLP, Assorted ML/AI courses, Complex Analysis, Group Theory, Advanced Statistics
- Activities: ICPC, Association for Computing Machinery (ACM), Stanford University Mathematical Organization (SUMO)

High School Dual Enrollment - Lawrence Technological University, Oakland University, Schoolcraft College **Michigan**

GPA: 4.0 | Dual enrollment 2018-2022

- Linear algebra, Discrete Math, Differential Equations, Databases/SQL, Data Science, Functional Programming, Multivariable Calculus, Intro & Advanced C++, Linux

Northville High School 2017-2022

EXPERIENCE

Amazon **Seattle, WA**

Software Developer Intern *June 2023 - September 2023*

- Deployed internal application to ~10,000 customer base of high-ranking management using native AWS technologies; drastically improved performance over old solution
- *Stack: React, Java, Typescript, AWS Cloudfront, AWS API Gateway, AWS Lambda, AWS S3, AWS Fargate, AWS EC2*

Stealth Startup **San Francisco, CA**

Principal Engineer *February 2023 - June 2023*

- Stealth Startup in proptech/contech funded by tier 1 pre-seed/seed VC
- Developed website component of product, fine-tuned GPT-3 models on novel datasets
- *Stack: React, Node.js, Django, PostgreSQL, AWS S3, GPT-3 API*

Amherst **New York, NY**

Research and Analytics Intern *June 2022 - September 2022*

- Developed and fit advanced statistical and neural network models to home price data in order to determine optimal investing strategy; models significantly outperformed traditional system in predicting above average growth regions
- *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 the multivariable calculus concept *quadric surfaces*, developed for use in research to improve quality of college education using modernized and engaging teaching strategies
- sambhavg.github.io/QuadCorp-WebGL
- *Stack: Unity, C#, Blender*

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

AWARDS

USACO (USA Computing Olympiad) Gold Level 2021

USAJMO (USA Junior Math Olympiad) Qualifier - Top 500 in mathematics nationally 2020

SKILLS

C, C++, Python (Django, NumPy, Pandas, Scikit-learn, Tensorflow, Pytorch, Jupyter, Matplotlib), Java, Javascript (React, Node.js, Express.js), Typescript, MongoDB, SQL, Rust, C#, Haskell, x86 Assembly, AWS common services, Unity, Blender, CAD software