ANANTH GOYAL

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EDUCATION

UC Berkeley - College of Engineering **June 2025**
Degree: B.S. Electrical Engineering & Computer Science [EECS], HKN Honors Society, Computer Science Mentors, Delta Consulting
Advanced Coursework: CS 270 [Grad] - Combinatorial Algorithms (A), CS 170 - Efficient Algorithms (A), CS 188 - Artificial Intelligence (A), CS 161 - Computer Security (A), CS 61C - Computer Architecture (A), CS 61B - Data Structures (A), CS 61A - Computer Programs (A), EECS 16A/B - Electrical Engineering and Linear Algebra I & II (A & A)

EXPERIENCES

Goldman Sachs **Summer 2024** **New York, NY**
Quantitative Research Intern
- Intern at **Portfolio Strategy** and **Resource Allocation** sub-teams: interest rate **pricing** & risk management, trade execution, **funding optimization & liquidity risk management** and cash & collateral management, developing **pricing models to determine liquidity**, **elasticity, optimal positions**

UC Berkeley EECS **Fall 2022 - Spring 2024** **Berkeley, CA**
Academic Researcher (Algorithms, Computer Vision, Approximation Theory)
- Developed **near-linear time approximation framework algorithm** for the NP-Complete Unit Task Scheduling Problem by using price functions with significant implications for scheduling theory
- Independently **published a paper in a professional research journal** on algorithm for detecting human speech by monitoring spasmodic lip movements and closures (**98% accuracy**) to simplify visual voice activity detection
- Developed a novel approach to approximate algorithmic runtimes and model non-polynomials as a function of piecewise quadratics (**99% functional resemblance**) **with significant pure/applied math applications** in approximation theory
- Interned at **Prof. Brian A Barsky's ATCC** (Assistive Technology + Cursor Control) Lab, and developed cost-effective application to a**ssist disabled individuals** with accessing and interacting with computers via **eye tracking, voice recognition, hand gestures**, etc.

CCC Intelligent Solutions **June 2023 - Jan. 2024** **Chicago, IL**
Software Engineering Intern
- Software for insurance companies (State Farm, Liberty Mutual, etc.) to **conduct claim filing, scheduling, appraiser management**
- Per customer request, independently built automation script to schedule **over 5000** appointments and designed a new faster algorithm to determine matching appraisers within a selected region given search criteria

Enable Technologies **Summer 2023** **Oakland, CA**
Software Engineering Intern
- Worked with REST API, PostgreSQL, Go Lang, and Python for developing users, roles, and permissions system for automatic loan assessment application at Fintech Startup

Connex **Summer 2023 - Present** **Berkeley, CA**
Chief Technology Officer
- **Lead the development and deployment** of the Connex common application which provided **diverse, equitable, intuitive** recruiting tools and software solutions for on campus organizations
- Facilitated over **1000+ Applications** in Spring 2024

Delta Consulting **Summer 2023 - Present** **Berkeley, CA**
Tech Director, Marketing VP, Analyst
- Worked on technical consulting projects with **Khan Academy** (UI/UX + AI/ML), **SRI International** (VR/XR), and **Ted** (LLM + SWE)
- Conducted **Leetcode/SWE/Algorithms workshops** for students and currently manage website, social media, and marketing fronts

UC Berkeley EECS Course Staff **Spring 2022 - Present** **Berkeley, CA**
Teaching Assistant, Course Reader, and Mentor
- Course Staff and Mentor for CS 61A (Intro Programming) and CS 70 (Discrete Math and Probability)
- Conducted Office Hours,

RESEARCH PUBLICATIONS

- Goyal, A. **Using Spasmodic Closure Patterns to Simplify Visual Voice Activity Detection.** SN COMPUT. SCI. 2, 10 (2021)
- Goyal, A. **Constructing Segmented Differentiable Quadratics to Determine Algorithmic Run Times and Model Non-Polynomial Functions**. arXiv preprint arXiv:2012.01420 (2020)
- Goyal, A. **A Self-Assessing Compilation Based Search Approach for Analytical Research and Data Retrieval**. https://arxiv.org/pdf/2008.01189.pdf (2020)

SKILLS

Skills: Java, Python, C, C++, Go, Javascript, SQL, UI/UX Design, Swift, XCode, HTML, CSS, Scheme, Spring Framework, REST API, RISC-V, Selenium, Web-Crawling, Applied Math, Information Retrieval, Git, Algorithms, Theory, Complexity Analysis, research, front-end, back-end, full-stack, Electrical Engineering, Computer Architecture