ANTHONY ZHANG

Lynnfield, MA | (978) 882-1508 | anthony.zhang@duke.edu | linkedin.com/anthonyjzhang1 | anthonyzhang.dev

EDUCATION

Duke University, *Pratt School of Engineering* **Durham, NC**
Triple Major in Computer Science, Mechanical Engineering, and Mathematics   May 2025
GPA: 3.81/4.00 | **ACT:** 35/36 | **SAT Math II:** 800/800 | **Honors:** Dean's List, Lynnfield High School Valedictorian
Relevant Coursework: Mathematical Finance (Graduate), Data Analysis & Decision Science, Computer Systems, Computer Networks
Activities: Duke Men's Basketball Creative Media Team, HackHarvard, PennApps (UPenn Hackathon), Duke Asian Students Association

WORK EXPERIENCE

Fidelity Investments – Global Financial Services Firm ($4.5 Trillion+ AUM) **Boston, MA**
Contract Associate Software Engineer Aug 2023 – Present
Full Stack Software Engineering Intern Jun 2023 – Aug 2023
- Safeguarded Fidelity Institutional's $50 billion portfolio by evolving internal application managing collateral, market, & credit risk
- Presented final deliverable pitch deck to Head of Market & Collateral Risk; strategized scaling product to additional business units
- Developed product (to be used by 500+ analysts) that catalogs over 10K distinct fields, formulas, & metadata across 4+ risk areas
- Employed Agile methodologies and Jira Scrum Boards to streamline project workflow, collaboration, and CI/CD product pipeline

Cell Signaling Technology – Largest Antibody Supplier ($200M+ Revenue) **Danvers, MA**
Information Technology Intern May 2022 – Aug 2022
- Identified bottlenecks in digital infrastructure; leveraged AWS to streamline production development pipeline for 140 employees
- Extended database capacity by ~35% through firmwide cloud computing integration with capability to store over 100 terabytes
- Implemented RESTful API function calls via AWS SDK to optimize retrieving, filtering, and storing antibody shipping properties
- Deployed application to store 5000+ key-value parameters using Maven and Spring to query company Amazon DynamoDB tables

Four Alpha – Sports Betting Arbitrage Initiative | *fouralpha.bet* **Durham, NC**
Co-founder / CEO Jan 2022 – Present
- Founded and led 15-person team; applying data-driven strategies to execute risk-free bets that remove house edge and yield ROI
- Aggregated historical, pre-game, and live betting odds across over 100,000 events and 12 bookmakers to capitalize on arbitrage opportunities in 60+ international sports markets; created Python pipeline to optimize detection, storage, & display of betting data
- Enhanced operational efficiency and competitive positioning via utilization of OddsAPI and Selenium WebDriver technologies

AWARDS & COMPETITIONS

Bain & Company x UChicago Case Competition (1st Place of 70 teams): Modeled operating budget scenarios, conducted detailed what-if analyses, and identified potential strategic partnerships to 4x income for 100 BMC, a Chicago-area non-profit
McKinsey Hackathon Finalist (Top 8 of 30): Pitched rollout strategy to increase donation/event revenue, drive Central Park Conservancy (CPC) brand awareness, and enhance visitor engagement; Developed digital app for CPC with integrated ML recommendation algorithm
HackMIT (Top 25 of 200+, YC Finalist): Selected to present to Y Combinator Partners, focusing on scaling product vision to make physical therapy accessible; Trained TensorFlow computer vision model to analyze exercises & provide AI-generated feedback with OpenAI

LEADERSHIP & INVOLVEMENT

TourHero - Social Travel Startup (Backed by Sequoia Capital & Lightspeed Partners) **Durham, NC**
- Optimized consumer acquisition process, led demand generation, orchestrated growth initiatives that generated ~$50K in revenue
- Spearheaded brand extension strategies, coordinated recruitment, and executed content creation for Campus and Wellness vertical, scaling to over 10 universities in 5 weeks, improving product-market fit by catering marketing mix to college-aged demographic

Duke Engineers for International Development - Impact Engineering Projects **Durham, NC**
- Directed team of 9 to deliver weekly client presentations, craft technical memos, and build a high fidelity 15-foot bridge prototype
- Engaged in intensive ideation sessions to evaluate design options, balancing budget constraints, environmental impact, and safety
- Partnered with Engineers in Action & University of Southern Indiana to implement 350-foot bridge; used by 2K Bolivians in Japo

Duke Applied Machine Learning Group – Innovate Solutions for Real-world Clients **New York, NY**
- Advised FinTech startup 'Marco Financial' through strategic cloud migration: transferring on-prem ML models to AWS SageMaker
- Utilized cloud technologies (Lambda, S3, API Gateway) to effectively align IT infrastructure with future scalability requirements
- Streamlined processing of $18M worth of invoices by conceptualizing innovative pipeline design to enhance document recognition

SKILLS & INTRESTS

Skills: Data Analysis (Sklearn, Pandas, etc.), Amazon Web Services, Databases, Python, Java, Agile Methodology, Scrum, RESTful APIs, Git
Certifications: AWS Certified Solutions Architect Associate, AWS Certified Cloud Practitioner Foundational, Bloomberg Market Concepts
Interests: Videography, NYT Mini-crosswords, Violin, Thrifting streetwear, Stand-up comedy, Poker, Tenting for Duke vs. UNC, Celtics