

# Ankush Swarnakar

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## EDUCATION

### Stanford University

B.S., Computer Science (AI Track). GPA: 4.08

Palo Alto, CA

2018 – 2022

Relevant Coursework: Computer Systems, Convolutional Neural Networks, Genomics, NLP, Blockchain & Cryptocurrency

- Co-Director, TreeHacks: Directed Stanford's largest hackathon with 1400+ attendees internationally and \$250k+ in sponsorship.
- Garage Fellow, Pear VC: One of top 30 Stanford students chosen for technical fellowship. Awarded \$250k in cloud resources.
- Stanford Debate Society: Compete in American & British Parliamentary Debate, placed 4<sup>th</sup> in North American Championships.

## WORK EXPERIENCE

### Blend

8VC Fellow, Product Management Intern

San Francisco, CA

Summer 2020

- Co-led launch of Blend's title insurance business. Created an end-to-end platform for lenders to automatically order a property's title transfer, collaborate on closing costs and liens in real-time, collect borrower data, and disburse escrow funds.
- Spearheaded new pricing engine to synchronously manage fees across several platforms, handle version control, and intelligently update closing costs. Deployed new fees service to all of Blend's product lines and piloted with major customers (inc. Wells Fargo).

### Pantera Capital

Special Projects Intern

Menlo Park, CA

Jan 2019 – present

- Built several projects around blockchain scalability (sharding and second-layer solutions), web 3.0 protocols (staking-based models of serverless compute, cross-chain communication), and decentralized finance (liquidity mining and multi-collateralized assets).
- Consulted on engineering and product for high-growth portfolio companies, including Lightning Labs, Augur, and Maker DAO.
- Wrote arbitrage strategies for firm's Digital Asset Fund (including token and non-token assets) that averaged a 213% ROI.

### Microsoft

Software Engineering Intern

Redmond, WA

Summer 2019

- Architected and deployed a lightweight, nested VM system to swarm-test codebase commits for the new Microsoft Edge browser.
- Implemented statistical framework that uses 5 years of Edge/Chromium testing history to infer the causes of new performance bottlenecks, security vulnerabilities, and code failures and triage bugs to 6k+ Edge developers (open-source and internal).
- Reduced mean time between new Edge deployments to production by 80%, allowing for seamless updates with Chromium.

### BlockCypher

Software Engineering Intern

San Francisco, CA

Summer 2018

- Built probabilistic models to systematically trace cryptocurrency (UTXOs) and de-anonymize transactions in cybercrimes. Collaborated with the FBI on a \$4M+ recovery and deployed models to constantly monitor activity on BTC, ETH, and BCH.
- Presented de-anonymization work at Stanford's Distributed Trust Initiative Conference as the youngest invited speaker.

## RESEARCH & PROJECTS

### A Low Cost, Ultrasound-Based Platform for Early-Stage Sarcoma Diagnosis

- Built image processing pipeline for diagnosis of sarcoma from 3D ultrasound images. Trained multiple convolutional neural networks for ultrasound super-resolution and image classification. Tool can diagnose sarcoma 4 months earlier than radiologists.
- Deployed at Stanford Hospital as a low-cost (~400% cheaper) alternative to MRI, increased early-stage screenings by 23% annually.

### American Sign Language (ASL) Client for Microsoft Cortana

- Built a trainable Xbox Kinect client to enable deaf users to interact with Cortana by associating user gestures with Cortana triggers.
- Developed pose estimation model with TensorFlow on Azure to dynamically learn and interpret user gestures from Kinect camera.
- Won at Microsoft's company-wide hackathon for the AI for Accessibility Initiative, recognized by CEO Satya Nadella.

### Smooth, Real-Time Neural Style Transfer on Videos

- Developed a novel architecture for style transfer of videos in real-time independent of the content or style inputs.
- Created an adaptive instance-normalization layer to stylize videos in real-time, 25x faster than the canonical approach.
- Wrote a new loss function to penalize stylization inconsistencies between frames, decreasing temporal inconsistencies by 60%.

## SKILLS

**Languages:** Python, Java, C++, C, C#/.NET, Swift, Javascript, SQL, HTML/CSS

**Tools:** PyTorch, TensorFlow, React, Angular, Figma, MongoDB, Firebase, PostgreSQL, Git, Azure, Google Cloud Platform, Jira