

Akshit Talwar

<http://akshittalwar.com>

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Mobile: 

SKILLS

- **Languages:** Python, Rust, Swift, C
- **Interests:** Bitcoin, Finance, Puzzles, Low-level system engineering, Art, Psychology

EXPERIENCE

Graphy by Unacademy

Senior Software Engineer

Bengaluru, India

June 2020 - October 2021

- **As team lead**, owned execution from 0-to-1 for core functionality (live streaming player and community chat).
- Contributed to the architectural design of a multi-platform live streaming player which supports 15,000+ concurrent users and community chat system which supports 100,000 users.
- Defined scope of work, task estimates, and planned sprints. Collaborated with 12 SWEs, 4 SDETs, and 3 product designers. Trained a team of 6 engineers to provide live IT support to time-sensitive features.
- **As an IC**, built a thread-safe iOS app that serves live video content to 50,000+ MAUs with a 0.03% crash rate.
- Wrote an optimized internal library to draw Bézier curves using the tridiagonal matrix algorithm. Built support for a dynamic infinite-scroll feed, authentication, deep-links, analytics, and Firebase remote-config.

Futurecam

Software Engineer

Bengaluru, India

May 2019 - March 2020

- Built a computational photography iOS app with capture modes like *Video light painting* and *Liquid long exposure*.
- Wrote and improved algorithms to concurrently process 1GB/s of image data in Swift.
- Defined scope of work, planned sprints, participated in code reviews, and architectural design decisions.
- <https://kartickvad.github.io/futurecam-website/>

Cryptare

Founder; iOS Engineer

Delhi, India

July 2017 - Aug 2018

- Built an investment portfolio management app for Cryptocurrencies with price alerts and news.
- **Achievements:** Rank 6 on iOS app store paid charts; 500+ WAUs; 50+ active subscriptions at peak.
- **Responsibilities:** App development, backend, UI/UX, product management, and marketing.
- **Stack:** Swift, Python, AWS, Firebase
- <https://github.com/atalw/Cryptare>

EDUCATION

University of St. Andrews

BSc. (Hons) in Computer Science; Direct 2nd Year Entry + Scholarship; Result: 2:1

St. Andrews, Scotland

Aug 2014 - June 2017

Bluebells School International

CBSE Physics, Chemistry, Math, English & Computer Science; Result: 93%

Delhi, India

April 2008 - May 2014

RESEARCH

Script Identification With Egyptian Hieroglyphs

First class (90th percentile)

St. Andrews, Scotland

April 2017

- Worked with Dr. Mark-Jan Nederhof and extended an OCR tool with a Convolutional Neural Network to classify Hieroglyphs with a 96.87% accuracy. <http://akshittalwar.com/files/dissertation.pdf>

PROJECTS

- **FromTheTransistor** (2022): Built the modern computer stack from first principles.
- **Mu** (2015): Music discovery web-app using Youtube and Reddit built in Angular2, Typescript, and MongoDB.
- **ChangeIndiaWithUs** (2013): A forum and blog for unpopular social issues; 1000+ DAUs.

AWARDS

- **6 year scholar (2014):** Bluebells School International
- **Innovation and Creativity Award (2014):** Bluebells School International
- **International Informatics Olympiad (SilverZone 2012):** International Rank 7
- **Math Olympiad (SilverZone 2009):** School Rank 1