CASE STUDIES: OUTPERFORMING INVESTMENTS

Case Study: Quantinuum

QUANTINUUM

Company Overview

- **Description:** Quantinuum is the full-stack market leader in quantum computing, with general-purpose hardware and quantum software algorithms and infrastructure

- **Employees:** ~550 FTEs

- **Capital Raised:** >$460 million

- **Latest Valuation:** $8.8 billion

- **Key Investors**

IBM   JPMorgan Chase & Co.   MITSUI & CO.

Investment Process

Sourcing

- Dillon researched quantum computing at Firmament in late 2019 and early 2020, cold emailing / calling most founders in the industry (120+), and chatting with 23 of them.

- As part of outreach, Dillon connected with quantum software startup Cambridge Quantum Computing in early 2020 (later re-branded to Quantinuum). Dillon began to build a relationship with CEO & Founder Ilyas Khan.

Underwriting

- Dillon developed a thesis around quantum software algorithm development being the best risk-adjusted area to invest in quantum, avoiding hardware given difficulty in selecting the winning hardware architecture.

- The CQC investment thesis focused on (i) deep F500 relationships where CQC employees were deployed for co-R&D with customers, (ii) recruiting and retention of top industry talent, and (iii) a generational founder with strong commercial instincts, technical credibility, and an ambitious vision.

Winning

- The CEO & Founder heavily valued Dillon's technical understanding of his business and comprehensive due diligence on the company before the first meeting. He also appreciated Dillon's time-to-decision and early commitment to investing in the round.

- Dillon won ~$660,000 of allocation in a convertible note round, with his and his family & friends' personal investment totaling ~$170,000.

Timeline

March 2020
- ▲ Firmament invests ~**$660,000 in a ~$20 million convertible note round**

November 2021
- ▲ CQC merges with Honeywell quantum computing hardware unit to form **Quantinuum**

February 2024
- ▲ Quantinuum raises $300 million at **$5.3 billion post-money valuation**

March 2025
- ▲ Quantinuum secondary transaction at ~**$8.8 billion valuation**

July 2021
- ▲ The note converted to equity at a **$244 million entry valuation;** ~$76,000 pro rata invested

2022-2023
- ▲ Dillon helps Quantinuum identify potential M&A targets and provides new investor relationships

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Case Study: Figure AI

Investment Process

Company Overview

- Description: Figure is a leading developer of AI-powered humanoid robots for use in manufacturing, warehouses, and home services
- Employees: ~310 FTEs
- Capital Raised: ~$1.9 billion
- Latest Valuation: $39.5 billion
- Key Investors

BEZOS EXPEDITIONS   **Microsoft**   **NVIDIA**

Sourcing

- Dillon sourced the deal in early 2023 through his close relationship with the partners at Tamarack Global, a $200+ million AUM deeptech investment firm.

- Dillon previously had hands-on experience in robotics through his mechanical engineering thesis at Harvard, where he worked on vision algorithms for micro-robotic bees. In Q1 2023, he began to dive deeper into the humanoid robotics space.

Underwriting

- Humanoid robotics were previously constrained by tedious reinforcement learning and motion capture / imitation processes, preventing behavior generalizability to different situations.

- The release of GPT-3.5 (which underpinned the initial release of ChatGPT in November 2022) and new research around multi-modal models initiated excitement around new reasoning capabilities with applicability to robotics.

- CEO & Co-Founder Brett Adcock initially financed the business in 2022 with proceeds from his prior exit at Archer. By early 2023, Figure had established a best-in-class team with talent from Tesla, Deepmind, Boston Dynamics, and Apple.

- New AI and hardware innovations unlocked Figure AI's viability for highly generalizable and self-improving robotic behaviors, giving the team an opportunity to execute rapidly.

Winning

- Dillon secured allocation via his relationship with Tamarack Global.

April 2023
▲ Dillon invests **$40,000 in the $70 million Series A round at a $420 million post-money valuation**

February 2024
▲ Figure raises $675 million Series B at $2.6 billion post-money valuation, led by OpenAI, Microsoft, and Nvidia

April 2025
▲ Figure completes $1.1 billion first close of $1.5 billion Series C round at a $39.5 billion post-money valuation

August 2024
▲ Figure unveils next-gen Figure 02 humanoid robot

December 2024
▲ Figure delivers Figure 02 robots for testing at first paying customer, BMW

Case Study: Normal Computing

NORMAL

Company Overview

- **Description:** Normal is a provider of agentic semiconductor verification & testing software and thermodynamic AI hardware

- **Employees:** ~30 FTEs

- **Capital Raised:** ~$50 million

- **Latest Valuation:** Confidential

- **Key Investors**

Celesta   First Spark Ventures   SAMSUNG NEXT

Investment Process

Sourcing

- Dillon first met Normal Computing Co-Founder & CEO Faris Sbahi during a networking event in New York City, initially bonding over shared interests in quantum computing and deep learning.

- Dillon began to spend time with the Normal CEO socially, eventually meeting other members of the Normal Computing team.

Underwriting

- Dillon had formed a thesis around the proliferation of application-specific semiconductors but lacked direct knowledge on thermodynamic AI hardware.

- Market research confirmed Normal's thermodynamic chips harness heat fluctuations to deliver higher computational efficiency, delivering step-function improvements for diffusion models (for image and video) and Gaussian sampling (critical to complex optimization problems).

- Dillon also developed a thesis on Normal's agentic AI workflow tools for verification and testing. Micron and other F500 firms indicated willingness to pay over $10 million ARR each for an agentic platform that accelerates time-to-revenue via automation in verification & testing processes.

Winning

- After meeting Faris, Dillon helped ad hoc throughout 2023, referring two key early hires.

- In 1H-24, Dillon helped considerably with the Series A raise, building a financial model, refining answers to diligence questions, and advising on term sheet negotiations.

- The CEO surprised Dillon by offering an advisory role and an ~$80,000 equity award (double the amount that Dillon committed to the Series A round).

May 2023
- ▲ Dillon meets Normal CEO during networking event in NYC

April 2024
- ▲ Normal raises $17 million Series A led by Drive Capital

Q1 2025
- ▲ Normal signs new commercial agreements with several F500 semis customers

May 2025
- ▲ Normal prepares for $50+ million Series B raise, with preempt interest from several top VCs
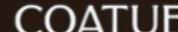
2H 2023 to Q1 2024
- ▲ Dillon assists Normal with hiring, commercial strategy, financial modeling, and Series A diligence & negotiations

July 2024
- ▲ Dillon officially becomes an advisor and receives ~$80,000 of equity (in lieu of allocated $40,000 Series A investment)

Case Study: Dirac

Investment Process

Company Overview

- **Description:** Dirac is a provider of an AI-powered work instruction creation platform for manufacturers, automating the highly manual process of generating of manufacturing instructions from engineering design files.
- **Employees:** 14 FTEs
- **Capital Raised:** ~$9 million
- **Latest Valuation:** Confidential
- **Key Investors**

FOUNDERS FUND   COATUE

Sourcing

- Dillon was introduced to Dirac CEO Fil Aronshtein in late 2023 by an early-stage VC who passed on the opportunity to invest.
- Dirac was raising pre-seed capital ahead of a planned seed raise in 1H-24.
- Dillon held calls with the Dirac CEO then began to spend time with him in-person during November 2023 in NYC.

Underwriting

- Dillon spent considerable time focusing on the ROI of Dirac's platform, which automates a manual, often paper-based workflow. Their product enables a highly-efficient iteration flywheel between mechanical engineers and manufacturing workers. Generating work instructions from CAD files was not possible before LLMs.
- The CEO had completed several dozens of reference calls with manufacturers, verifying the process bottleneck and potential to save hours of time per mechanical engineer. The CEO already had several million of ARR in the pipeline before product release.

Winning

- As he started to build conviction in the opportunity, Dillon began to make introductions to GTM partners and advisors, which was the top priority for the CEO.
- Dillon also began introducing the CEO to top VCs (e.g., Founders Fund, Thrive, DCVC) and becoming a confidante for the CEO during the fundraise process.
- The CEO invited Dillon to invest in a pre-seed SAFE. Dillon invested $20,000 personally.

October 2023
- ▲ Dillon introduced to Dirac by VC investor

Q4 2023
- ▲ Dillon introduces Dirac CEO to GTM advisors and potential hires. Dillon then invests **$20,000 in a pre-seed SAFE with a $15 million post-money valuation cap**

April 2024
- ▲ Coatue & Founders Fund (sponsored by Trae Stephens) co-lead Dirac's $6 million seed round

2025
- ▲ Dirac continues to gain traction, highlighted by pilots with Anduril, Stellantis, and Lockheed Martin

November 2023
- ▲ Dillon introduces his friend at Founders Fund to the Dirac CEO, helping to create further early awareness of the business @ FF

January 2023
- ▲ Dillon advises Fil to pass on a seed round term sheet at a <$20 million valuation. Dillon instead makes makes introductions to ... continue building interest