WILL HIGHDUCHECK

New York, NY • (917) 684-2334 • will.highducheck@gmail.com

EDUCATION

Dartmouth College   **September 2000 to June 2004 (Hanover, NH)**
B.A., Pure Mathematics
- Relevant coursework included number theory, computability, linear algebra, abstract algebra, combinatorics, probability theory, statistical modeling, differential equations, logic, economics, and computer science

Penn-Trafford High School   **August 1995 to June 1999 (Harrison City, PA)**
Valedictorian, 400-Member Senior Class
- 1st Place State MathCounts Competition; 2nd Place State FBLA Math Competition; other math and science awards
- SAT: 800 Math, 800 Math IIC, 800 Chemistry

EXPERIENCE

Simple Haven   **March 2023 to April 2025 (New York, NY)**
Founder: Real Estate Technology
- Technical founder at a stealth real estate technology start-up which intends to capitalize on upcoming legal changes to the US residential real estate market's fee and disclosure structure
- Tech stack includes React, TypeScript, Ionic (mobile), Go, PostgreSQL, and Redis

Coinbase   **January 2021 to March 2022 (Seattle, WA)**
Senior Software Engineer: Cryptocurrency Exchange
- Maintained and optimized the legacy back-end API written in Ruby on Rails with a MongoDB datastore
- Directly responsible individual (DRI) on two to four concurrent projects at any given time
- Back-end architecture redesign of primary account history and ledger system from legacy Ruby on Rails with MongoDB to Golang with PostgreSQL
- Directly responsible individual for the financial hub on the launch of over two dozen new cryptocurrencies on the platform
- Directly responsible individual for the successful launch of Coinbase Japan
- Directly responsible individual for the redesign of the account history system using Golang and PostgreSQL

Various Companies   **September 2014 to Present (New York, NY)**
Software Engineering and Technical Consultant: Various Industries
- Projects and clients have included Y-Combinator co-founder matches, tech start-ups, later stage companies, and academic institutions
- Back-end architecture redesigns using Golang, Java, Ruby, Python, and various data stores including PostgreSQL, Redis, MongoDB, Snowflake, Amazon Redshift, S3, and more
- Full stack application development using Ruby on Rails, Golang, and Python frameworks
- Mobile using Ionic Framework with Capacitor.js and desktop application development in Electron.js
- DevOps experience with both Amazon Web Services and Microsoft Azure
- PostgreSQL and MongoDB database scaling, optimization, and design
- Continuous log analyses, alert configuration, and monitoring
- Implemented multiple continuous integration and deployment solutions

Adaptly (Acquired by Accenture)   **August 2011 to September 2014 (New York, NY)**
                                                        October 2014 – October 2020 (Remote)
Senior Software Engineer: Social Media Advertising Platform
- Designed, maintained, and optimized the back-end API using Clojure, PostgreSQL, RabbitMQ, and Redis
- Evaluated new technologies ranging from new languages to distributed data stores by creating both proofs of concept and extensive stress tests in a timely fashion
- One of the leads on the application's architectural redesign which deprecated the Ruby services and separated real-time from historical services using Clojure/Java, PostgreSQL, and Redis
- Solely maintained the deprecated Rails application for both internal use and an external API client for a year
- Led the core team responsible for increasing performance, reliability, and usability of each of our services
- Won all internal hack fests while in New York with projects including an automated reporting tool allowing for client ready reports and a cross platform social media identity mapping tool
- Developed deployment and reliability tools for Amazon EC2 using Capistrano, Chef, and Datadog
- Created the continuous integration servers and processes using Jenkins

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EXPERIENCE (CONTINUED)

Antarctica Asset Management   **November 2010 to April 2011 (New York, NY)**
Risk Manager and Head of Quantitative Analytics: Hedge Fund
- Directly worked with and reported to both the CEO and Head of Research at this approximately $2bn global macro hedge fund and fund of hedge funds founded 15 years ago by former JP Morgan and ABN AMRO senior executives
- Member of the four-person investment advisory committee comprised of the CEO and two other principals which is responsible for making the final decision on any investments
- Led the evaluation and management of risk across the global macro hedge fund and 12+ fund of hedge fund portfolios using both security based and factor based statistical models

Data Owl   **June 2009 to March 2010 (Austin, TX)**
Technical Co-Founder: Social Media Monitoring Service
- Co-founded a social media monitoring platform targeted at small to medium sized enterprises
- Self-taught Ruby on Rails, MySQL, and Apache HTTP server admin in seven weeks to meet a demo deadline
- Wrote proprietary natural language processing algo, custom web scraping tech, and used multiple 3rd party APIs
- Selected as one of 40 finalists out of 500+ applicants in Y Combinator's Winter 2010 funding competition

Harbor Hills Partners   **May 2006 to June 2009 (New York, NY)**
Associate: Investment Banking Mergers and Acquisitions
- Directly worked with senior managing directors at a boutique firm founded by JP Morgan's former global head of M&A and a Citigroup senior executive
- Advised on M&A and other strategic advisory assignments, including cross-border transactions throughout Latin America, Europe, and Asia
- Regularly built detailed financial models, including M&A valuations, accretion/dilution analyses, merger consequences, leveraged buyouts, and equity and debt financings
- Personally engaged in extensive client interaction while drafting offering memoranda, conducting due diligence, organizing data rooms, preparing management presentations, and fulfilling ad hoc requirements
- Transaction industries included the following: consumer and retail; energy; financial services; healthcare; industrial; technology, media, and telecommunications

Allianz Global Investors   **April 2005 to May 2006 (New York, NY)**
Analyst: Quantitative Risk Management
- Created automated analytical models for each of the firm's 32 open-end funds
- Wrote ongoing research reports detailing the statistical risk assessments of each fund's performance to analyze the strengths and weaknesses of its sub-advisor

Citigroup   **October 2004 to March 2005 (New York, NY)**
Analyst: Private Banking Credit Services and Control
- Converted Latin American portfolio to a web-based credit platform and identified potential problems with individual client accounts

SELECT SKILLS

Technical
- Ruby; Golang; Python; Clojure; Java; TypeScript; React.js; Node.js; DevOps; Amazon Web Services (AWS); Azure; Chef.io; Capistrano; Docker; Kubernetes; Linux Admin; Database Admin; PostgreSQL; MySQL; MongoDB; Redis; RabbitMQ; Ruby on Rails; Django; Business Intelligence; Log Analysis; Looker; Datadog; Spark; Splunk; Tableau; Snowflake; Redshift; Terraform; Mobile Application Development; Ionic Framework; Electron.js; Machine Learning; TensorFlow; Pytorch; Jenkins; Continuous Integration and Deployment; Hadoop, HDFS, MapReduce; Hive; Service Oriented Architecture Design; Distributed System Design

Financial
- Mergers and Acquisitions (M&A); Cross-Border Analysis; Various Valuation Techniques; Accretion and Dilution Analysis; Merger Consequences; Leveraged Buyouts; Equity Financing; Debt Financing; Hedge Fund Investment Analysis; Direct Investments in Futures and Options, Commodities, Equity Index Derivatives, and Sovereign Debt; Advanced Microsoft Office Suite (Excel, Word, PowerPoint) with Visual Basic for Applications