

Debdut Karmakar

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EDUCATION

Drexel University Philadelphia, PA 19104, USA

BSMS Math · BS Computer Science · Dropped Out

DEVELOPER SKILLS

Programming Languages

Javascript Node · Typescript · C++ · Python · C · Go · Haskell

Machine Learning AI Data Science

PyTorch · scikit-Learn · numpy

Frameworks Libs

React JS · Vue JS · GraphQL · React Native · RxJs · MongoDB · PostgreSQL

PAPERS & PUBLICATIONS

[A Rational Catalan Formula for \$\(m,3\)\$ -Hikita Polynomials](#)

| ELECTRONIC JOURNAL OF COMBINATORICS

[Solution To 2x2x2 Rubik's Cube Using Audodidactic Iteration: A Deep Reinforcement Learning Approach](#)

HONORS & AWARDS

2017 William Lowell Putnam Math Competition **USA Top 100**

2016 William Lowell Putnam Math Competition **USA Top 200**
Robert J. Bickel Endowed Scholarship in Mathematics
STAR Scholarship, Drexel University
Drexel Dean's List

2015 A. J. Drexel Scholarship
Drexel Dean's List

2014 USA/Canada Mathcamp **India Top 1**
Indian National Math Olympiad **India Top 75**

2013 USA/Canada Mathcamp **India Top 1**
Regional Math Olympiad **WB Top 10**

2012 Regional Math Olympiad **WB Top 3**
Ramanujan Award, Calcutta Mathematical Society
NSTSE **India Top 30** 2012

COURSEWORK

Computer Science

Compilers · Systems Programming · Systems Architecture · Computer Vision · Functional Programming · Machine Learning · Artificial Intelligence

Mathematics

Linear Algebra · Numerical Analysis · Symbolic Computation · Topology · Enumerative Combinatorics · Machine Learning Models

EXPERIENCE

Fluent | [fluent.co](#) Fluent | Founding Engineer

August 2020 - Present



Product Hunt

#2 Product of the Month

- Built a Chrome Extension to learn New Languages while browsing the Web.
- Built Translations across languages using NLP.
- Built Onboarding Frontend, Highlights on Pages using React/Typescript.

Daily Objects | Fullstack

December 2019 - July 2020

- Developed the Daily Objects Ecommerce new site with a team of 12 people.
- Changed the Dev Stack towards minimalism and ensured speed and security.

hindpos (Dhanotree Innovations LLP) | Founder & Developer

December 2016 - December 2019

- Our first product **HindPOS Ausadhi** helped Pharmacy Retailers and Distributors to sell, track and create a market place for inter selling. The product development was done in MEVN stack.
- Launched in 2017; despite very poor marketing and sales expertise, we retailed about 900 customers in Howrah district at 10K INR.
- Developed **Invoicer**, an easy Cloud based invoicing tool that sent payment links in WhatsApp, Email & SMS; but couldn't launch it.
- Developed **InstaBooks**, a Cloud based accounting software with bank reconciliation features. Dev in MERN stack with GraphQL in AWS.

Lem.ma | Course & Platform Developer

December 2015 - April 2016

- Wrote Calculus Course platform Dev Python, JS and MathJax for EdTech Startup.

RESEARCH

STAR Scholar | Rational Catalan Polynomials

December 2015 - April 2016 | Funded by Drexel University

- Established a new formula for Hikita Polynomials to Catalan Polynomials.
- Wrote lots of code in Sage Math Python, an Algebraic Combinatorics Library.

Research Scholar | Roots Distribution of Quasi Infinite Polynomials

June 2016 - February 2017 | Funded by Drexel University

Research Assistant | Computational and Analytical Challenges in Nonlinear Dispersive Wave Equations

January 2017 - June 2017 | NSF Grant #1409018

- Model a variety of phenomena in fluid mechanics, plasma physics and optics.
- Solved Partial Differential Equations by Numerical Methods in Python Numpy.

PROJECTS

SimPDF | [simpdf.com](#)

The Simplest & Minimalist PDF Editor



Product Hunt

#2 Product of the Day

Blogletter | [blogletter.email](#)

Turn Your Blog into a Newsletter

Testflight Live | [testflight.live](#)

An App Store for Testflight and Beta Apps

React Fast Charts

A fast charting library in React from scratch that loads in 50ms.

GitHub

GitHub