

Pranay Sarkar

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EDUCATION

West Bengal University of Technology

B.Tech in Information Technology GPA: 8.30/10.0

Kolkata, West Bengal, India

Graduation: June 2012

EXPERIENCE

360 Treasury Systems AG, Deutsche Börse Group

Software Developer

Frankfurt am Main, Germany

Sep 2018 - Present

- Designed low latency multi-threaded trading system
- Designed architecture for new Single Sign-On system to interact with more than 20 internal tools
- Designed and implemented Support Site to monitor hundreds of FX transactions for clients, and integrated with RFS, EMS (Execution Management System) system
- Worked with MiFID II regulation tool (Directive 2014/65/EU), while improving the architecture and partially implemented it
- Worked with EMS tools like Change Request, Company Administrator - a tool to manage market-maker entities
- Worked with Docker infrastructure to write and maintain different auto deploy scripts for different part of the trading platform independently of other components

360 Trading Networks AG, Deutsche Börse Group

Platform As a Service (PaSS) Developer (Part Time)

Frankfurt am Main, Germany

May 2017 – Aug 2018

- Modified and maintained Patch Tool - that is used by every developer to transfer changed classes quickly to distributed development machine
- Worked full-stack across Mailbox systems, from the iOS app in Objective-C/C++11 to several backend systems in Node.js/CoffeeScript. Required quickly picking up different environments
- Supported more than 50 developers with integration and troubleshooting and usage of internal tools

Ponttec GmbH

Software Developer for Industrial Automation (Part Time)

Langen, Germany

Jan 2016 – June 2016

- Worked with 50% contract along with Freelancing
- Worked on PHP based, EFRIS (Easy Flexible Reliable and Intelligent Solution) ERP CMS system
- Designed and developed RESTful API from the Scratch to interact with existing system and new mobile systems
- Worked on Android app based on Ionic Cordova
- Improved existing migration mechanism and indexing of MySQL database and integrated MongoDB with an existing PHP platform
- Worked on modifying MEAN stack with MySQL

Freelancer - Full Stack Software Developer

Full Stack Developer

Kolkata, India

Feb 2011 – Apr 2017

- Interacted with approximately 50 clients, with many start from freelance development and turning into long term maintenance
- More than 15 projects on PHP, JavaScript, JQuery - most of them were for public open source media listing
- Interacted with clients for around 20 projects with open source form softwares like vBulletin, Invition Power Board (IPB), phpBB, Simple Machines Forum etc
- Around 20 projects in Wordpress for both individuals and companies
- Language and Technology stack: PHP, CSS, HTML5, MySQL, Redis

INTERNSHIPS

Research Internship on Distributed threat prevention system

Oct 2015 - Nov 2016

- Topic: Botnet Surveillance System (BoSS)
- Developed a centralized Server-side application and client-side application (Multi Platform) that allows easy adaptation and creation of botnet crawlers for P2P-based botnets
- Implemented server side code in Java and the client side application was implemented in python. Server could handle 0.1 million requests from clients per second.(Implemented Ring Buffer)
- Utilized docker for setting up the overall system
- Utilized NoSQL databases such as Redis, MongoDB to persist data

PROJECTS

BitsB v1.5

Jan 2010 – May 2016

- Worked on a PHP based open source peer-to-peer document sharing protocol and a centralized tracking system
- Some features were made from the scratch (e.g. live chat, advanced discussion forum)
- Used CSS optimization and SQL live query caching and optimization using *Memcached*
- Worked on this in my free time, during my freelancer Web development period. Some customised versions of this was also made for some clients during that time

Blockchain based distributed Web3 housing marketplace

Nov 2021 – Feb 2022

- As the final Project in Blockchain Developer MOOC at Udacity, extended the basic provided resource to develop a secure digital public records of building ownership
- Each title can be added as a separate Asset in listing websites like OpenSea and each of them are secured using zk-SNARK (Zero Knowledge Proof) varification system
- All titles are grouped into a custom minted collection with the option to buy, sell and bid
- Deployed in testnet: <https://testnets.opensea.io/collection/udacity-coin-pranay>

CERTIFICATIONS

- **Blockchain Developer** from Udacity (Feb 2022)
- **Full Stack Web Developer** from Udacity (Oct 2021)
- **Data Science Specialization** from Johns Hopkins University, Coursera (Aug 2018)
- **Machine Learning Specialization** from University of Washington, Coursera (Jul 2018)
- **Deep Learning Specialization** from DeepLearning.AI, Coursera (June 2018)
- **Functional Programming in Scala** from cole Polytechnique Fédérale de Lausanne, Coursera (Mar 2018)

ADDITIONAL

- Participated in Merck Hackathon 2015 'Future of Health' and ranked 2nd while working with the topic 'Using AI to optimize medicine delivery system'
- Participated in AGT International Hackathon 2016
- Programming Languages: Java, Python, Scala, C, Shell, HTML/CSS, Javascript, jQuery, NodeJS, PHP
- Technologies: Docker, Spring, Hibernate, SQL (Oracle, Postgres, MySQL), NoSQL (Redis, MongoDB), Vue.JS, Angular