Pranay Sarkar

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EDUCATION

West Bengal University of Technology **Kolkata, West Bengal, India**
B.Tech in Information Technology GPA: 8.30/10.0 *Graduation: June 2012*

EXPERIENCE

360 Treasury Systems AG, Deutsche Börse Group **Frankfurt am Main, Germany**
Software Developer *Sep 2018 - Present*
- Working with high frequency, low latency multi-threaded distributed trading system
- Designed architecture for a novel 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 Request for Stream (RFS), Execution Management System (EMS)
- 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
- Helped in migrating older code-base form subversion to git. Wrote some industry standard git hooks to accommodate existing workflow.

360 Trading Networks AG, Deutsche Börse Group **Frankfurt am Main, Germany**
Platform As a Service (PaSS) Developer (Part Time) *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 on dependency management tools and helped in moving the retro components from Maven to Gradle and designed necessary automated build systems around them
- Supported more than 200 developers with integration and troubleshooting and usage of internal tools

Ponttec GmbH **Langen, Germany**
Software Developer for Industrial Automation (Part Time) *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 **Kolkata, India**
Full Stack Developer *Feb 2011 – Apr 2017*
- Interacted with approximately 50 clients, where 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 custom projects with open source duscission forum software like vBulletin, Invition Power Board (IPB), phpBB, Simple Machines Forum etc
- Around 20 projects in Wordpress (popular blogging software) 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 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**, Udacity (Feb 2022)
- **Full Stack Web Developer**, Udacity (Oct 2021)
- **Data Science Specialization**, Johns Hopkins University, Coursera (Aug 2018)
- **Machine Learning Specialization**, University of Washington, Coursera (Jul 2018)
- **Deep Learning Specialization**, DeepLearning.AI, Coursera (June 2018)
- **Functional Programming in Scala**, Ecole 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, C, Shell, HTML/CSS, Javascript, NodeJS, PHP, Scala
- Technologies: Docker, Spring, Hibernate, SQL (Oracle, Postgres, MySQL), NoSQL (Redis, MongoDB), Vue.JS, Angular