# Aneesh Krishna Parthasarathy

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## Education

**Purdue University Honors College** - Class of 2027 
West Lafayette, IN
B.S. Computer Science (Focus: Machine Intelligence) + Applied Statistics 
Minors: Mathematics + Finance
- Coursework: Programming in C/Java/Python, Blockchain Dev, OOP, DSA, Computer Architecture, Multivariate Calc
- Extracurriculars: Boiler Blockchain, The Data Mine, Purdue DOSA, Cricket & Social Outreach, Tamil Sangam

**Academies @ Englewood (High School)** - Computer Science (High Honor Roll) 
Englewood, NJ - GPA: 4.3

## Technical Skills

- **Languages:** Java, Python, C, C++, C#, R, SQL, JavaScript, TypeScript, PHP, Go, Solidity, HTML5, CSS, LaTeX, Bash
- **Technologies:** React, Node.js, Redux, Express.js, MySQL, AWS, Azure, Docker, UNIX, GitHub, VS Code, Matplotlib
- **Skills:** Full-Stack Development, REST API Design, Multithreading & Concurrency, Data Analysis & Modeling, Data Cleansing & Preprocessing, Machine Learning (Regression, Classification, Clustering), Algorithm Design & Big-O Analysis, Automata Theory, Shell Scripting, Unit Testing, Agile Methodologies, CI/CD, API Gateway & Rate Limiting
- **Certifications:** Behavioral Research Investigators **(CITI Program)**, Responsible Conduct of Research, Cybersecurity, Data Science, Modern AI, Networking, IoT, Python Essentials I & II, JavaScript Essentials I & II, CSS Essentials, HTML Essentials, Endpoint Security, Ethical Hacking, Cyber-Threat Management, Network Defense **(CISCO)**

## Experience

**Retail Hedging LLC,** Software Engineering Intern 
May 2025 - Aug 2025
- Designed and shipped a production-grade, mobile-first trading UI using React, TypeScript, and MUI, with animated navigation and seamless Auth0 integration. Architected dynamic dark/light theming via React Context and MUI APIs, ensuring accessibility and performance across devices. Built secure Auth0–Stripe JWT flow using custom Actions, RS256 signing, and backend token validation for subscription-based access control.
- Developed Stripe-integrated Express backend for issuing tiered JWTs and enforcing gated features (Basic, Plus, Pro). Replaced polling with efficient one-time token fetch logic using React hooks and secure JWT sync pipelines.
- Leveraged Vite, Framer Motion, and ngrok to streamline dev workflow, with strong .env and key management

**PlaytoonIt Inc.,** Full Stack Developer Intern 
Jun 2025 - Aug 2025
- Developed high-performance multiplayer games using Unity and React, implementing real-time stat syncing.
- Engineered scalable Node.js backends with secure auth, REST APIs, and optimized database integrations for persistent player data. Delivered cross-platform gaming solutions with seamless UX, low-latency communication

**The Data Mine - West Lafayette, IN**, Undergraduate Data Science Researcher 
Jan 2025 - Present
- Leveraged Python to analyze Indiana state datasets, uncovering key trends, anomalies, and predictive patterns
- Delivered data-driven insights to inform strategic decisions for public agencies and private-sector stakeholders

**Purdue University - West Lafayette, IN,** Data Science & Statistics Researcher 
Mar 2025 - Present
- Analyzed 18,000+ student survey responses from Japan and the U.S. to assess evolving educational values
- Modeled sentiment trends pre/during/post-COVID using R and Python to guide institutional research.

## Projects

**Freelance DAO - Smart Contracts,** Lead Developer
- Developed a decentralized freelance platform on Ethereum using Solidity, enabling automated transactions between clients and artists through smart contracts, connected using MetaMask.
- Designed and implemented an on-chain voting mechanism to resolve disputes; community members cast votes to determine fair outcomes when conflicts arise between buyers and service providers.
- Ensured secure and transparent arbitration by leveraging blockchain records and consensus-based resolutions

**Vibe - Social Media App,** Lead Developer
- Built a multi-threaded Java back-end server and client GUI (Java Swing) to support real-time messaging, image sharing, friend management, and user search functionality. Engineered persistent, real-time chat with edit/delete message support using Java I/O and socket programming; implemented custom protocol handling for efficient, low-latency communication and robust error recovery. Integrated user authentication, optimized database interactions for scalability, and improved UI responsiveness to enhance user experience and system reliability.