

Darren Erawan

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EDUCATION

University of Illinois at Urbana-Champaign, Grainger College of Engineering Bachelor of Science in Electrical Engineering Bachelor of Science in Mathematics Relevant coursework: Stochastic Processes, Real Analysis, Complex Analysis	<i>August 2025 – May 2028</i> GPA: 4.0/4.0
Sekolah Pelita Harapan <i>International Baccalaureate Bilingual Diploma</i> Relevant coursework: Math AA HL, Physics HL, Economics HL, Chemistry SL, English SL	<i>August 2022 – May 2025</i> GPA: 43/45 Valedictorian

RELEVANT EXPERIENCES

Illinois Mathematics Lab: Spatial Spreading of Altruism <i>Researcher</i> - Investigated game-theoretical interactions among individuals in spatial settings, emulating real-world population dynamics - Utilized game theory, stochastic processes, ordinary and partial differential equations, and MATLAB simulations to analytically and numerically investigate various strategies (prisoner's, snowdrift, and continuous-trait models) - Collaborated with students and faculty mentors to study stability and bifurcations from uniform states in both pre-organized and self-organized group structures	January 2026 – Present <i>Urbana, IL</i>
Illinois Microtech: HackerFab <i>Interdisciplinary Applications Sub-Lead</i> - Lead team of 7 building affordable DIY semiconductor fabrication machines without cleanrooms, collaborating with 3 other sub-teams for operational efficiency - Experiment with viable polydimethylsiloxane alternatives for microfluidic channel creation via resin-based 3D printing, balancing safety, quality, cost, and resolution - Benchmark current fabrication process quality through insights gained from microfluidic and PCB fabrication	October 2025 – Present <i>Urbana, IL</i>
Entrepreneurial Experience <i>Owner, Manager, and Product Manager</i> - Generated \$300,000 in profits and 70+ customers through zero-capital bootstrapped financing - Developed and sold plug-and-play cryptocurrency miners catered towards a nontechnical customer base by breaking down complex processes into a streamlined user experience - Integrated IoT-based energy meters with EVM-based RPCs to provide real-time profitability feeds on Unix systems, aiding in compartmentalized maintenance and profitability analysis - Streamlined procurement of parts via a grassroots campaign reaching 60+ individual suppliers and vendors	March 2021 – January 2023 <i>Jakarta, Indonesia</i>

PROJECTS AND ACTIVITIES

Tokopedia – Skibstore <i>Owner and Manager</i> - Started venture importing non-FMCGs; exotic electronics (cryptocurrency hardware wallets, e-ink tablets) for 60+ customers, generating \$50k+ revenue - Prepared formal import documents, studied customs law, and provided after-sales support - Cultivated a 4.9-star rating (n=72) with reviews citing “exceptionally fast, transparent communication; hard-to-find products delivered ahead of schedule; and responsible, integrity-driven service”	October 2023 – June 2024 <i>Jakarta, Indonesia</i>
JULC Limited (okse.io) <i>Security Engineer</i> - Discovered and patched security vulnerabilities exposing 1k+ customers' PII for a fintech startup issuing Visa Debit cards - Oversaw KYC (know-your-customer) data integrity, ensuring compliance with the Cayman Islands Data Protection Act (2021), shielding the company from approx. \$120,000 in fines - Spearheaded cybersecurity initiatives involving a team of 5 developers, overhauling standard operating procedures	August 2023 – December 2023 <i>Remote (Jakarta, Indonesia)</i>

SKILLS AND CERTIFICATIONS

Python | MATLAB | Unix/Linux | Linear Algebra | SketchUp | KiCad | Azure Certified