 github.com/dyrobin
 linkedin.com/in/dyrobin

YANG DENG

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Employment

Senior Software Engineer	**Helvar**	**May 2017 – Present**

Lighting Intelligence Platform
- Developed 2 internal libraries (rabbitmq-client and logger) and published them into company's NPM registry (Both have 100% test coverage and are widely used within the team)
- Developed 2 out of 3 components of ActiveAhead controller where each component works as a microservice that employs RabbitMQ as message broker and Redis as database
- Wrote scripts to build/configure/deploy/run ActiveAhead controller (Docker image)
- Co-designed/developed parts of cloud backend and API endpoints where many Amazon Web Services are involved, for example Lambda, DynamoDB, IoT Core, Kinesis, S3, ElasticSerarch, API Gateway, etc
- Built up end-to-end/integration testing framework using PyTest and integrated with Jenkins pipeline
- Scrum master (>1.5 years)

Software Engineer	**LUMO Connections**	**Nov. 2016 – Apr. 2017**

Smart Lamp
- Implemented RESTful APIs by Node.js Express on Raspberry Pi
- Developed a tiny HTTP server that integrated with WiFi manager on ESP8266 (NodeMCU)

Software Engineer, Researcher	**Aalto University**	**Sept. 2011 – Oct. 2016**

Adaptive 6LoWPAN Packet Size Control
- Applied SciPy to analyse and visualize massive 6LoWPAN packet data
- Proposed *first linear then exponential* algorithm that improved throughput up to 40%
- Presented paper in a well-known conference EWSN2015

Multicast for Constrained Networks
- Implemented a prototype of IPv6 Multicast Listener Discovery on Contiki OS
- Established a test bed for MPL (RFC7731) and evaluated its performance against flooding
- Drafted a simplified multicast protocol for constrained networks based on PIM-SSM

Software Engineer	**Nokia Research Center (Beijing)**	**Nov. 2008 – Aug. 2011**

Rich Context Mobile Platform
- Developed a publish-subscribe messaging mechanism for widgets on N900
- Filed a patent (US 20140237486 A1) on inter-widget communication

Handwriting Calculator
- Implemented user interface using GTK+ on Maemo platform
- Released on Nokia Beta Labs and won outstanding project award

Additional Experience

- Web Developer (2018): Developed a commission calculation website based on LAMP
- Web Developer (2016): Built an e-commerce website (`store.kanssani.fi`) using WooCommerce
- Website Administrator (2012 - 2016): Maintained a phpBB forum for scholar and student community
- Teaching Assistant (2015): Taught two course assignments (P2P networking and WiFi positioning)

Education

Espoo, Finland	**Aalto University**	**Sept. 2011 – Aug. 2016**

- Ph.D candidate in Computer Science and Engineering. GPA: 4.77/5

Beijing, China	**Beijing University of Posts and Communications**	**Sept. 2003 – Apr. 2010**

- Master's Degree in Computer Networking, April 2010. GPA: 4.0/5
- Bachelor's Degree in Computer Science and Engineering, June 2007. GPA: 4.4/5

Skills

- Programming: Git, JavaScript, Python, Shell script, C/C++
- Knowledge: Scrum, Kanban, Microservices, TDD/BDD, RESTful API, Docker, OOP, DevOps